R E P O R T R E S U M E S

ED 002 877 24

THE INFLUENCE OF TEACHERS AND PEERS ON ASPIRATIONS OF YOUTH.

BY- ZANDER, ALVIN AND OTHERS
MICHIGAN UNIV., ANN ARBOR,RES.CTR.FOR GRP.DYNAMICS

REPORT NUMBER CRP-451 PUB DATE 61
MICHIGAN UNIV., ANN ARBOR,INST.FOR SOCIAL RESEARCH
EDRS PRICE MF-$0.18 HC-$3.36 84P.

DESCRIPTORS- *SOCIAL INFLUENCES, *TEACHER RESPONSIBILITY, *STUDENT TEACHER RELATIONSHIP, *ASPIRATION, OBJECTIVES, MOTIVATION TECHNIQUES, LABORATORY EXPERIMENTS, SELF EVALUATION, STUDENT BEHAVIOR, PSYCHOLOGICAL PATTERNS, HIGH SCHOOL STUDENTS, TEACHER ROLE, ANN ARBOR, MICHIGAN

THE INFLUENTIAL RELATIONSHIPS BETWEEN THE STUDENT AND HIS TEACHERS AND PEERS WERE INVESTIGATED TO DETERMINE HOW AND WHY THEY MIGHT AFFECT STUDENT DESIRES AND OBJECTIVES. THREE SEPARATE STUDIES WERE CONDUCTED, INVOLVING APPROXIMATELY 740 JUNIOR AND SENIOR HIGH SCHOOL STUDENTS. THE FIRST, A QUESTIONNAIRE STUDY, EXAMINED THE EFFECTIVENESS OF SOCIAL INFLUENCES OF TEACHERS UPON THE ASPIRATIONS OF STUDENTS WITH RESPECT TO THEIR SOCIAL POWER AS IT APPEALS TO DIFFERENT STUDENT MOTIVES. THE SECOND, A LABORATORY EXPERIMENT, INQUIRED WHETHER SELF-EVALUATIONS AND EFFORTS TO COPE WITH AN EXPERIENCE OF FAILURE DIFFERED WHEN STUDENTS WERE EXPOSED TO SOCIAL PRESSURES FROM PEERS BASED UPON SEPARATE SOURCES OF SOCIAL POWER. THE THIRD, ALSO A LABORATORY EXPERIMENT, CONSIDERED THE CONTRASTING USES OF COPING BEHAVIOR BY A STUDENT WHEN HE WAS FREE TO SET HIS OWN ASPIRATIONS, WHEN HE WAS INFLUENCED BY AN AUTHORITY FIGURE TO ACHIEVE AT A GIVEN LEVEL, AND WHEN HE RECEIVED SOCIAL SUPPORT FROM HIS PEERS. FINDINGS IN ALL THREE AREAS OF STUDY WERE NUMEROUS AND ADDED NEW INSIGHTS TO THE ROLE A SINGLE TEACHER COULD PLAY IN SHAPING A STUDENT'S IMMEDIATE ASPIRATIONS OR DISTANT GOALS AND IN MOLDING THE PERSONALITY OF YOUTH. (JH)

ED002877

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education
This document has been reproduced exactly as received from the person or organization originating it. Points of view or opinions stated do not necessarily represent official Office of Education position or policy.

The Influence of Teachers and Peers on Aspirations of Youth

U. S. Office of Education Cooperative Research Project 451

Alvin Zander

Theodore Curtis

Howard Rosenfeld

Research Center for Group Dynamics

Institute for Social Research

University of Michigan

1961

Contents

	Page
Preface	2
Abstracts of the Three Studies in This Report	3
The Influence of Teachers on Aspirations of Students.	7
Effects of Social Power on Aspiration Setting and Striving. .	27
Test-Failure, Social Support and Coping Behavior.	52

Preface

The research reported herein was supported through the Cooperative Research Program of the Office of Education, U. S. Department of Health, Education, and Welfare.

Three related investigations are described. The first, a questionnaire study, investigates the effectiveness of social influence of teachers upon the aspirations of students, when the teachers' social power appeals to different motives in students. The second, a laboratory experiment, inquires whether self-evaluations, and accompanying efforts to cope with an experience of failure, differ when persons are exposed to social pressures from peers based upon separate sources of social power. The third, also a laboratory experiment, considers the contrasting uses of coping behavior by a person when he is free to set his own aspirations and when he is influenced by an authority figure to achieve at a given level. The effects of social support from peers upon the choice of coping behavior is also examined in this study.

We are deeply grateful to the high school students, teachers, and principals who helped in various ways during these several investigations.

A.Z.

T.C.

H.R.

Research Center for Group Dynamics

Jan. 1961

Abstracts of the Three Studies Described in This Report

1. The Influence of Teachers on Aspirations of Students (Zander and Rosenfeld)

A questionnaire was used to explore the effects of teachers' influences upon students' aspirations for achievement in school. Hypotheses drawn from earlier work on the differential consequences of separate types of social power were tested in a correlational analysis. The major findings were as follows.

a. Tendencies to accept a teacher's influences are aroused in students who are subject to reward, legitimate, referent, or expert power; while tendencies to ignore or oppose what teachers desire are aroused in students who are subject to indiscriminate coercive influences.

b. With the possible exception of expert power, these tendencies in students affect the degree to which they set their aspired grades congruent with their perceived capacities.

c. Two forms of coercion are distinguished by students: disapproval of inadequate performance, which appears to have no affect on aspirations or future performance, and disapproval even when his performance is as good as the student feels he can do, which seems to have negative effects on aspiration setting as well as future performance.

d. Two forms of reward are also distinguished by students. Tendencies to accept a teacher's influences are lowered under indiscriminate reward but increased by reward for adequate performances.

e. The positive or negative forces set up by the separate bases of power affect the favorableness or negativeness of student attitudes toward teachers and course content.

f. The separate bases of power are effective in determining aspirations to the degree that the students are ego involved in the performances on which they are setting aspirations.

2. Effects of Social Power on Aspiration Setting and Striving (Zander and Curtis)

Individual Ss were observed in a situation similar to the one used by Rotter (1942) for studying the level of aspiration, while they were to perceive themselves as members of a team which was not physically present. In two experimental conditions (referent and coercive) the Ss were provided standards of individual performance, for a series of trials, said to originate in other members of their team. Events were so arranged that Ss, over the series, did not attain the performance levels put before them by the others. In a third condition (control) Ss were not provided standards of performance from others. Assumptions were made that: (a) scores are evaluated in terms of internal levels of aspiration; (b) referent social pressures influence cognitions (e.g., internal levels of aspiration) more than do coercive social pressures; and (c) a discrepancy between an internal level of aspiration and an obtained score generates forces to reduce this discrepancy.

Several hypotheses concerning self evaluation and performance were corroborated, where all Ss scored below the levels proposed for them by others.

a. Ps in a referent relationship with O evaluate their scores lower than Ps in a coercive relationship with O.

b. Ps in a referent situation obtain higher scores than do Ps in a coercive situation.

c. Ps in a coercive situation reveal weaker motivation to reach a high score than do Ps in a referent situation.

Several hypotheses, comparing the reactions of Ss who are in coercive and referent relations with others, received support.

d. Ps in a coercive situation perceive O as less attractive than do Ps in a referent situation.

e. Ps in a coercive situation state less acceptance of O's social pressures than do Ps in a referent situation.

f. Emotional tension is greater in Ps either in a referent or coercive situation than in Ps under no social pressures in the control condition.

Two other hypotheses were not satisfactorily confirmed.

g. Ps in a referent situation discredit the validity of the test more than do Ps in a coercive situation.

h. Ps in a referent situation discredit the centrality of the tested ability more than do Ps in a coercive situation.

3. Test-Failure, Social Support and Coping Behavior (Zander and Curtis)

High school senior boys were given a test (in groups of six members) which was alleged to be a measure of ability in insight. For half of the subjects a minimally good score was described by E and for the other half no standard was provided. All participants, except for those in a control condition, were given low scores on the test. Within each of the standard and no-standard conditions subjects were allowed a free period, introduced as an emergency and as an unexpected interruption in the testing procedure. During half of these interruption periods the E left the room (secret condition), in the other half of them he remained in the room (exposed condition). The major results follow:

1. Subjects in the standard condition evaluated their performances more unfavorably than subjects in the no-standard condition.

2. Subjects in the standard condition set a higher criterion, by which they apparently judged their performances, than did subjects in the no-standard condition.

3. Subjects in the standard condition therefore demonstrated more use of coping behavior, intended to overcome their above noted loss of self evaluation, than did subjects in the no-standard condition.

4. Within the standard condition, those subjects who had an exposed discussion engaged in less coping behavior than those who had a secret discussion, a difference not found in the no-standard condition. Secret discussants in the standard condition, it should be noted, generated more easily achievable aspirations for themselves than did exposed discussants.

5. The available evidence suggests that subjects in secret discussions developed a social reality supportive of negative attitudes toward the test more than did subjects in the exposed discussions.

6. Subjects who received high scores on the test (success-control) were favorable toward all aspects of the situation and themselves, more so than those who received low scores.

I.

The Influence of Teachers on Aspirations of Students

Early studies of goal setting have shown that a person usually selects a level of aspiration which represents a mild challenge for him, given that he has knowledge of his past performances (Lewin, Dembo, Festinger, & Sears, 1944). In general, he attempts to reach the most rewarding goal that he feels he can reasonably attain. It is also known that aspirations are often influenced by sources external to the persons who set them (Festinger, 1942). Little evidence however is available concerning the nature of this influence process.

The interest of this study in the effects of teachers on a student's aspirations was stimulated by the above problem and by the awareness that appropriate goal setting by a student is an important practical issue. A salient dimension on which a pupil can hardly avoid setting a level of aspiration, and can hardly avoid being influenced by his teacher when doing so, concerns his grades in school. We define a student's level of aspiration as that level of achievement, indicated by a grade, which a pupil realistically expects to attain in a given course.

For the purposes of this investigation, we assume that teachers attempt to influence pupils to work up to their capacities, and that these pressures are guided by professional norms that students should not be expected to work beyond or below their capacities. We assume that any given student is reasonably confident he knows the level of his best possible performance (his capacity) and that he believes his teacher knows his capacity equally well. We further assume that students are aware of the pressures from teachers and that students believe they should not be pressed to aspire either beyond or below their capacities.

The attempts of teachers to influence students are usually based upon assumptions as to what will motivate pupils to accept these inductions, such as rewards, punishments, provision of relevant information, and so on. French and Raven (1959) have proposed five separate bases of social power whose effectiveness depends upon the degree that they stimulate forces in the recipient of the influence attempts to act in accord with these inductions, minus the degree they generate forces in the recipient to resist these inductions. A summary of studies on the consequences of these different forms of social power is provided by French and Raven (1959) and by Cartwright (1959). The hypotheses considered in the present investigation are in large part suggested by French and Raven. The derivations of these hypotheses are described by those authors and will not be discussed here.

A secondary concern of this study is in the students' perceptions of the valence and the probability of performing up to his capacity, and how these variables intervene between influence attempts by teachers and the setting of aspirations by students. This interest in the consequences of perceived valence and probability stems from assumptions in Lewin's theory of aspiration setting that the level of aspiration is a function of the positive valence of succeeding, the negative valence of failing, and the probability of succeeding or failing. Probability is measured here in terms of the perceived difficulty of achieving a capacity performance.

Finally, we consider the effects of different forms of social power upon attitudes toward teachers and the subject matter of the course. Hypotheses tested here were, for the most part, proposed by French and Raven.

The present theoretical orientation may be summarized in the following model, the terms of which are explained below.

Act of teacher	Decision making by Student	Decision of student
Form of influence	Valence of capacity Difficulty of capacity	Congruence between student's aspirations and capacity

By form of influence we refer to the bases of social power proposed by French and Raven: reward, coercion, expert, legitimate, and referent. Each of these is defined in the presentation of the results. Valence of capacity is the degree that a student perceives the attainment of his capacity grade as an attractive goal. Difficulty refers to his perception of the probability that the goal is attainable. It is assumed that the degree of difficulty perceived by a student is determined not only by his personal ability, but also by external barriers such as the competence of teachers and the sufficiency of time and help in doing assignments. Degree of congruence between aspired grade and capacity grade is the distance between the aspired grade and the capacity grade, divided by 1.

Method

Due to the exploratory nature of this research and the large number of concepts involved, a written questionnaire was selected as the basic instrument. Although it is difficult to specify with confidence the direction of causality in our correlational results, hypotheses and empirical evidence developed in other settings can be used in interpreting the most probable direction of causality. Conclusions will be stated in terms of hypotheses deemed worthy of study under more controlled conditions.

The relevant concepts were measured with questions utilizing Likert-type scales. Preliminary versions of this questionnaire were developed and revised on the basis of intensive interviews with students. The questionnaire focused on the aspirations of students in mathematics classes and on the relationship of students to teachers of mathematics. Mathematics was selected since this course is required of all respondents and because there should be little ambiguity in students' minds over the nature of a good performance compared to courses using more subjective criteria for evaluation of their progress. The questions were repeated for English courses in order to examine the effects of a different course content and the consequences of the greater

social emphasis upon achievement in mathematics which supposedly characterizes contemporary society.

Four-hundred male students, 100 from each of four junior high schools comprised the sample. Tenth graders were selected because they include the oldest group with a wide distribution of ability. The four schools were chosen to provide a wide range of socio-economic status and ability of students. A comparison of results for the predicted relationships within each of the four schools revealed that no important differences exist among the schools insofar as the present data are concerned.

Respondents in each school filled-out the questionnaire during a 1.5-hour period while teachers were absent from the testing room. The administration of the questionnaire uniformly occurred shortly after students had received their grades for the fourth of six marking periods. The recent knowledge of their grades provided the students with stable evidence of their present level of performance while permitting the possibility of future changes in the grades and in the students' aspirations for grades.

Validation of Assumptions

The interpretation of results in this study rests upon assumptions stated earlier about teachers' intentions and students' perceptions of teachers' acts. The results, on the whole, support the reasonableness of these assumptions.

It was assumed that students believe their capacity is known by teachers. Evidence suggesting that this assumption is warranted for the purposes of this study is provided by the pupils' answers to the query: "Do you think your teacher is a good judge of your ability?" In the responses 67% of the students described their teachers as "quite good" or "very good" judges of their abilities. It was also assumed that students are aware of their own capacities and that they support the norm that they should not be expected to perform at levels beyond capacity. Support for these assumptions is found in responses to the question: "How reasonable is your teacher in how well he expects you to do?" Seventy-nine percent of the students replied that their teacher "expects about the right amount from me," 14% felt that the teacher required "too much" and 7% answered "too little." These percentages also provide indirect support for the assumption that teachers are guided by professional norms holding that students should not be expected to work beyond or below capacity.

A further assumption was that teachers expect pupils to work up to their capacity level. Over 80% in each of the schools perceived their teacher as expecting they could perform at the level of their capacity, while less than 1% said that they had no idea what their teacher expected of them. Most students, however, did not view these as strong demands. In response to the question: "Has your math teacher 'pushed' you to work toward this (capacity) grade?" 55% said that they felt "little or no pressure" while only 14% said that they felt "quite a lot" of pressure.

The aspirations of students may be strongly determined by their confidence in themselves. We felt it was important, therefore, to determine what effect this personality characteristic might have upon students' attitudes toward influence attempts by teachers as well as students aspirations and achievements. A standardized measurement of test-anxiety prepared by Mandler and Sarason (1952) was administered to all subjects. High scores on this measures indicate a high fear of failure.

While test-anxiety was not correlated with students' perceptions of teachers' influence, it was related to aspiration setting in a way consistent with findings in previous research on the level of aspiration. Atkinson has found that persons with high test-anxiety tend to avoid moderate risks (Atkinson, 1957). The present data show that students with high test-anxiety set aspirations farther from their present level of performance than do students with low test-anxiety. The goals set by the more anxious students were often unrealistically high. The high goals are taken to be unrealistic since it was noted that the farther students set their aspirations from their current grades in mathematics, the less they were likely to attain their levels of aspiration in their final grades for the course ($r = -.63^{**}$).[1]

Results

How much were the students committing themselves when they stated their levels of aspiration? To answer this question, aspired grades were compared with the grades actually received by students at the end of the semester. The substantial relationship between aspired grades and those received at the end of the semester ($r = .66^{**}$) suggests that the aspirations were realistic among a majority of students. The aspired grades usually were set from one-third to one whole letter grade higher than grades received for immediately past performances, a typical phenomenon in setting aspiration levels indicating a desire for future improvement.

Our principal concern is in the relationships of the separate forms of power exerted by teachers (as students view these matters) with the

---

[1] Correlation coefficients reported in text and tables are marked by asterisks to indicate the probability values at the .05 (*) and .01 or less (**) levels of significance, two-tailed test.

congruence between students' stated aspirations for grades and their perceived capacities.

Perceived level of capacity was measured by the query: Not everyone can get A for a final grade in mathematics. Many students know that they must get something less because everyone has an upper limit to his ability. What final grade do you think you could get if you worked to the limit of your ability and did the best you could in mathematics for the rest of the semester?

Aspired grade was attained by the query: Students do not always feel like doing their best in a certain class. Sometimes they are willing to accept a grade which is not as good as they could get if they really tried. The final grade you will get in your math class this semester will depend partly on how hard you are going to work for the rest of this semester. Considering how hard you plan to work, what final grade do you think you should get in math this year?

Effects of Separate Bases of Power

The most direct attempts to influence students are based on the use of sanctions: by rewarding or coercing. Rewards are given or promised for behavior which is in accord with the wishes of the inducer. Coercion, based upon the ability to punish, is exerted or threatened for behavior that is not in accord with the wishes of the inducer. In a school, a teacher may administer sanctions in many ways: by the grades he gives, by comments or signs made to students, by exclusion from the group or assignment of responsibilities in class, by reports to authorities or parents, and the like. In order to encompass this variety of approving or disapproving cues, it was found necessary to cast questions about sanctioning acts by teachers in terms of the approval or disapproval that students perceived teachers have toward them. A general measure of the degree that sanctioning was perceived as rewarding or coercive was sought with the query: "On the whole, how much do you feel that your math teacher is pleased (or displeased) with you compared to the rest of the class?" It was expected that the greater the relative approval received by the student, the greater would be the congruence

between his aspired grade and his capacity grade. In the first row of Table 1 it can be seen that this expectation is supported.

Table 1

Correlations between Forms of Power and Congruence

(N = 415)

Form of power attributed to teacher	Congruence of student's aspirations and capacity
Comparative degree of rewarding sanction	.21**
Discriminate reward, frequency	.07
Indiscriminate reward, frequency	.05
Discriminate coercion, frequency	.09
Indiscriminate coercion, frequency	-.14**
Legitimacy of grading	.21**
Expertness in grading	.09
Referent status of teacher	.13**

**$p < .01$.

Although reward and coercion can be conceived as the extreme ends of a single dimension, French and Raven note that "the distinction between these two types of power is important because the dynamics of them are different." Extreme punishment of a person, for example, may lead him to avoid or escape the whole situation in which it operates, while receipt of a valued reward may make the situation more attractive to him. Thus, measures were made of the degree that teachers reward ("Does your math teacher seem to be pleased when you do your best?") and of the degree that teachers coerce

("Does your math teacher seem displeased when you don't try very hard and your work is not as good as it could be?"). Each of these questions was answered on a frequency scale. Because the reward and coercion in these instances are being given where they are ordinarily taken to be appropriate reactions, they are designated as discriminate sanctions to distinguish them from indiscriminate sanctions, discussed in a moment. On the second and fourth lines of Table 1 are shown correlations between frequency of discriminate sanctions and congruence. The low and nonsignificant correlations suggest that the degree of discriminate reward or coercion that teachers were perceived to use do not affect the degree of congruency between aspirations and capacity.

Two further concepts relevant to sanctioning behavior were investigated. The first is indiscriminate reward: "Is your math teacher ever pleased with your work even when you don't try hard?" The second is indiscriminate coercion: "Does your math teacher ever seem to be displeased with you even when you do your best in class?" It can be seen in Table 1 that indiscriminate reward has no apparent effect upon congruence while indiscriminate coercion is inversely related to congruence.

This last finding suggests that indiscriminate coercion arouses stronger tendencies to resist the teacher's inductions, than to accept them. To test such an hypothesis, students were asked: "How often do you feel like doing the things your math teacher wants you to do?" Results relevant to this hypothesis are shown in the first column in Table 2. It is plain that students perceived themselves as less ready to conform to a teacher's desires when coercion was indiscriminate than when it was discriminate.

Table 2

Correlations between Forms of Sanction and Power, and Desire to Conform and Legitimacy

(N = 415)

Form of power attributed to teacher	Desire to Conform	Legitimacy
Discriminate coercion	.13**	.06
Indiscriminate coercion	-.19**	-.24**
Difference**		
Discriminate reward	.29**	.31**
Indiscriminate reward	-.11*	-.03
Difference**		

*$p < .05$.

**$p < .01$.

It has been found in other research that resistance to influence becomes greater as legitimacy of influence decreases (see French and Raven). The legitimacy of social sanctioning stems from the perception, in those being influenced, that the influencer is behaving in accord with the internalized values of the ones being influenced. The degree of legitimacy attributed to teachers' behavior was measured by the query: "How fair is your mathematics teacher about most things?" The correlations between legitimacy and the separate forms of sanctioning are shown in the second column of Table 2. It can be seen that discriminate reward is reliably related to legitimacy but indiscriminate reward has no relationship with

legitimacy. Furthermore, indiscriminate coercion is reliably associated with nonlegitimacy while discriminate coercion has almost no association with legitimacy. We conclude that teachers who are considered discriminate in rewards are likely to be seen as "fair," while those who are indiscriminate in coercion are likely to be seen as "unfair."

French and Raven hypothesize that coercion arouses strong resistance in the recipient of it so that the inducer's desires are not always acted upon by the recipients and, depending upon the strength of the resistance aroused, the recipients may instead be stimulated to do the opposite of what has been asked of them. This hypothesis has been corroborated by Zipf (1958) and Sampson (1960). The present findings (and those to be seen in Table 3) suggest that resistance to coercion in the school setting may more readily generate negativism when the coercion is indiscriminate.

Legitimate power, we have seen, stems from the perception that an influencer is behaving in accord with the values of the person being influenced. In some instances acts by a teacher may be perceived as legitimate or non-legitimate without their being direct attempts to influence the student. An example of this type of legitimacy concerns the fairness of the teacher in evaluating the student's work. The degree of this form of legitimacy attributed to teachers was measured by the question: "If you did your best in math class would your teacher actually give you the grade that describes your ability?" It was expected that students who perceived their teacher as more legitimate would tend to set levels of aspiration closer to their perceived capacities since the risk of failure from unfair treatment by the teacher would be minimal. Evidence reported in the sixth row of Table 1 supports this prediction. Confidence, then, that one will receive the grade he earns if he works up to capacity (and not necessarily a high grade) is

associated with tendencies to aspire to attain capacity.

Expert power is based upon the perceived reliability of the influencer's information. The more an informer is perceived as knowing what he is talking about, the more the informer is likely to influence the recipient of the information. Since we are assuming that teachers' inductions are often placed upon the student in the direction of working up to capacity, it is evident that the teacher's attempts to influence will be more acceptable if the student perceives that the teacher knows what the student's capacity is. Thus, expertness of the teacher was measured in one way with the following question: "Do you think your math teacher is a good judge of your ability in mathematics?" It was expected that greater attribution of expertness to the teacher would be associated with greater congruence between aspiration and capacity. In the realm of teaching, however, expertness is also conceived as skill in the substantive content of the course being taught. A measure of this type of expertness is the following: "How much do you think your math teacher knows about the mathematics he is supposed to teach?" Results reported in Table 1 concern only expertness in judging the ability of students, since the results with the previous measure (expertness in math) were not different in any important respects. The non-significant correlations in the seventh row of Table 1 suggest that the expertness of the teacher does not generate greater congruence between aspirations and capacity. The failure of expertness to be related to congruence might be explained by French and Raven's statement (1959) that

> expert power results in primary social influences on the person's cognitive structure and probably not on other types of systems. Of course, changes in the cognitive structure can change the direction of forces and hence of locomotion, but such a change of behavior is secondary social influence (p. 163).

Referent power exists in an influencer when others desire to be like him. Students who are highly attracted to a teacher are likely to behave in ways of which he would approve, although they may not be aware of doing so. It was found offensive to students in pretests to inquire how much they desired to associate with or be like teachers. Therefore, measurement of this form of power was by means of the question: "In general, how much do you like your mathematics teacher as a person?" The prediction that greater referent power attributed to a teacher would be associated with greater congruence between aspiration level and perceived capacity was supported, as shown in the eighth row of Table 1.

The effects of the various forms of power may be summarized by noting the positive effects of rewarding sanctions, legitimate power, and referent power on the congruence between aspirations and capacity, and the negative effect of indiscriminate coercion. It is noteworthy that the first three forms are also significantly positively related to one another, indicating that they often appear simultaneously in the teacher's behavior and often supplement one another, as proposed by French and Raven. Indiscriminate coercive power, on the other hand, is negatively related to each of the other forms. The first three forms of power, we may add, are attributed to teachers more often by students who attribute high capacity to themselves, while coercive power is attributed to teachers more often by students who assign low capacity to themselves. Nevertheless, when perceived capacity is controlled, the relationships in Table 1 are not substantially lowered and retain their statistical significance--students with high ability are differing greatly from those with low ability.

Student Performance

An important consequence of social power is the degree that the separate forms of power motivate students to perform at the level of their aspirations. The relationship between the closeness of the aspired grades to the actual grade the student received at the end of the year, and the attribution of reward power to the math teacher was $r = .24^{**}$. This relationship is significantly greater than its relationship to coercive power ($r = -.08$). Thus, positive forms of influence appear to stimulate attainment of aspirations more than do coercive forms of influence.

Valence and Difficulty of Attaining Capacity

According to the theory of aspiration setting proposed by Lewin et al. (1944) one specific aspiration level, out of a number of possible alternatives, is likely to be chosen depending upon the degree that it is attractive but not too difficult to attain. We thus expected to find students placing their levels of aspiration closer to their perceived capacity the more the capacity grades were valent for them and the less achievement of them was perceived as difficult. Valence of capacity was measured by the question: "How good do you think you would feel if you did get this grade?" Difficulty was measured with the query: "How hard would you have to work in order to receive this grade?" The expectation just stated was supported: valence of capacity grade is positively related to congruence ($r = .12^{*}$), and difficulty of attaining capacity grade is negatively related to congruence ($r = -.27^{**}$). It is noteworthy that valence and difficulty are positively related to each other ($r = .26^{**}$), supporting the Lewin et al. (1944) and the Atkinson (1957) findings that a difficult goal tends to be more attractive than easy ones.

We had expected to find that different forms of power would have

different degrees of relationship to the valence the student attributed to the achievement of his capacity grade. A teacher who rewards a student for working at capacity, for example, might generate a greater desire in him to achieve capacity than a teacher who punishes him for not doing so. The statistical relationships between each form of influence and valence of reaching capacity were, however, consistently too low to be considered reliable. But the teachers' total amount of power in attempting to influence students appears to affect students' perceptions of the valence of the capacity grade. When all forms of power are considered together in a multiple correlation with valence, the multiple correlation between power and valence of the capacity grades is .27**. The nature of the contributions made by the separate forms of power, moreover, makes it appear likely that a teacher who employs several positive bases of power simultaneously, to support his inductions on a student to work up to capacity, will have greater effect upon the valence of doing so than a teacher who employs only one positive basis of power. Why and how social power can have effects upon the valence of a goal are problems worthy of future attention.

It seems reasonable that the closer a student sets his aspired grade to his perceived capacity, the more he will be satisfied in attaining this established aspiration. This contention was supported by a correlation of .32** between congruence and valence of success, the latter measured by the query: "How good would you feel if you were given the grade you intend to get?"

Desire to Conform

A direct determination of the readiness of students to be influenced by teachers was sought by the use of two related concepts: perceived desire

to conform and perceived desire negatively to conform. The former was measured with the question: "How often do you feel like doing the things your math teacher wants you to do?" The latter was measured by the query: "How often do you feel like doing the opposite of what your math teacher wants you to do?" All forms of power together are strongly related to desire to conform (multiple R = .56**). Desire to conform, in turn, is related to congruence (r = .20**).

The relationships between the separate forms of power and the desire to conform, or to do the opposite, are shown in Table 3. Consistent with Table 1, indiscriminate coercion was related to nonconforming desires, indiscriminate coercion and reward were negatively related to conforming desires, and all other forms of power (including expertness) were positively associated with conforming desires.

Table 3

Correlations between Forms of Power and Motivation to Conform

(N = 415)

Form of power attributed to teachers	Desire to conform	Desire negatively to conform
Comparative degree of rewarding	.35**	-.24**
Discriminate reward, frequency	.29**	-.15**
Indiscriminate reward, frequency	-.11**	.09
Discriminate coercion, frequency	.13**	.00
Indiscriminate coercion, frequency	-.19**	.16**
Legitimacy of grading	.33**	-.24**
Expertness in grading	.30**	-.20**
Referent status of teacher	.53**	-.29**

**$p \leq .01$.

Attitudes of Students toward Teacher and Course

A final interest of this investigation was in the relations between types of power and attitudes toward relevant aspects of the social setting. Two variables were considered here. One query asked about changes in attitudes toward the teacher ("Has your opinion of your mathematics teacher changed from what it was at first?"). The other inquired about changes in attitude toward the content of the course ("Do you feel any different about mathematics now than you did before you took this math course?"). Both items were scored in terms of direction of attitude change as well as intensity of change. In Table 4 correlations are presented between these two attitudes and the different forms of power attributed to teachers. The evidence indicates that each form of power affects both of these attitudes in directions similar to the effects we have seen for grade aspirations, and desires to conform, and in directions suggested by French and Raven.

Table 4

Correlations between Forms of Power and Changes in Attitudes

(N = 415)

Form of power attributed to teachers	Change in attitude toward teacher	Change in attitude toward math.
Comparative degree of rewarding	.27**	.30**
Discriminate reward, frequency	.30**	.23**
Indiscriminate reward, frequency	-.05	-.08
Discriminate coercion, frequency	.07	.01
Indiscriminate coercion, frequency	-.22**	-.21**
Legitimacy of grading	.17**	.17**
Expertness in grading	.37**	.29**
Referent status of teacher	.57**	.40**

**$p < .01$.

Results from English Classes

The results we have thus far observed concerning teachers in mathematics were not completely replicated when students were queried about their English teachers. Similar correlations were found in mathematics and English when relating forms of power to desires for conformity and to attitude changes toward the teacher and the course content. Only legitimate power, however, was significantly related to the congruence of aspired and capacity grades in the English classes. The fact that legitimate power appears to have positive effects in both mathematics and English is understandable since legitimacy was rated by the students as the most effective source of a teacher's power in response to an inquiry into the relative importance of teachers, parents, and peers as power figures.

The failure of the other bases of power among English teachers to be related to congruence, however, requires further explanation. The original reason for the inclusion of questions about English teachers was the expectation that students would be less certain of the nature of good performance in English courses than in mathematics courses. We anticipated that influence might be more effective in English classes because students would be less clear about their capacities in that subject matter and therefore less confident of appropriate aspirations for themselves, thus being more vulnerable to influences from teachers (cf. Festinger, 1954). Contrary to our expectations, more uncertainty about the appropriateness of their aspirations was shown in mathematics than in English, as indicated by responses to the questions "Do you think you are aiming for too high or too low a grade?" Comparisons, furthermore, of responses to questions concerning the degree that teachers reveal their reactions to good or bad performances and the adequacy of help

rendered by teachers showed no differences between mathematics and English classes. We were led, therefore, to suspect that the apparent ineffectiveness of influence attempts in English classes was due not to the course material itself or to the methods of teaching, but to the motivations of students.

An indicator of student concern over performance was available in the previously mentioned measure of valence of success. In mathematics classes, all forms of influence except coercion were significantly related to the valence of successfully achieving the aspired grades. In English classes, however, only referent power showed this relationship to a significant degree. It appears, then, that the students were more eager to do well in mathematics than in English. Further weight is lent to this interpretation by responses to the question: "Which class do you think is more important for your future?" In the replies, 34 students favored English, 152 preferred mathematics, and the rest saw them as equally important.[2] It is interesting to note that in the literature on level of aspiration, experimental predictions are better supported the more that subjects have ego involvement in their tasks (Lewin, et al., 1944; Stotland, Thorley, Thomas, Cohen, & Zander, 1957).

Summary and Conclusions

A questionnaire was used to explore the effects of teachers' influences upon students' aspirations for achievement in school. Hypotheses drawn from earlier work on the differential consequences of separate types of social power were tested in a correlational analysis.

1. Tendencies to accept a teacher's influences are aroused in students

---

[2]The questionnaire was administered to students during the spring of 1959, that is, during the post-Sputnik emphasis on mathematics and physical science.

who are subject to reward, legitimate, referent, or expert power; while tendencies to ignore or oppose what teachers desire are aroused in students subject to indiscriminate coercive influences.

2. With the possible exception of expert power, these tendencies affect the degree to which students set their aspired grades congruent with their perceived capacities.

3. Two forms of coercion are distinguished by students: disapproval of inadequate performance, which appears to have no effect on aspirations or future performance, and disapproval even when performance is as good as the student feels he can do, which seems to have negative effects on aspiration setting as well as future performance.

4. Two forms of reward are also discriminated by students. Tendencies to accept a teacher's influences are lowered under indiscriminate reward but increased by reward for adequate performances.

5. The positive or negative forces set up by the separate bases of power affect the favorableness or negativeness of student attitudes toward teachers and course content.

6. The separate bases of power are effective in determining aspirations to the degree that the students are ego involved in the performances on which they are setting aspirations.

REFERENCES

Atkinson, J. Motivational determinants of risk-taking behavior. Psychol. Rev., 1957, 64, 359-372.

Cartwright, D. Power: A neglected variable in social psychology. In D. Cartwright (Ed.), Studies in social power. Ann Arbor, Mich.: Inst. Soc. Res., 1959.

Festinger, L. Wish, expectation, and group standards as factors influencing level of aspiration. J. abnorm. soc. Psychol., 1942, 37, 184-200.

Festinger, L. A theory of social comparison processes. Hum. Relat., 1954, 7, 117-140.

French, J. R. P., Jr., & Raven, B. The bases of social power. In D. Cartwright (Ed.), Studies in social power. Ann Arbor, Mich.: Inst. Soc. Res., 1959.

Lewin, K., Dembo, Tamara, Festinger, L., & Sears, Pauline. Level of aspiration. In J. McV. Hunt (Ed.), Personality and the behavior disorders. New York: Ronald, 1944.

Mandler, G., & Sarason, S. B. A study of anxiety and learning. J. abnorm. soc. Psychol., 1952, 47, 166-173.

Sampson, E. An experiment on active and passive resistance to social power. Unpublished doctoral dissertation, University of Michigan, 1960.

Stotland, E., Thorley, S., Thomas, E., Cohen, A., & Zander, A. The effects of group expectation and self-esteem upon self-evaluation. J. abnorm. soc. Psychol., 1957, 54, 55-63.

Zipf, Sheila. An experimental study of resistance to influence. Unpublished doctoral dissertation, University of Michigan, 1958.

II.

Effects of Social Power on Aspiration Setting and Striving

Early research in the level of aspiration provided a useful theory for explaining a person's selection of one goal from among a set of potential goals, his subsequent changes in this choice, and his evaluation of efforts to attain this goal (Lewin, et al., 1944). It was evident in those studies that selection of a particular level of aspiration and later changes in aspiration levels during a series of trials could usefully be conceived as coping behaviors, apparently intended to prevent a low evaluation of oneself. Later research demonstrated that a person's awareness of the scores obtained by others on the same task influenced his level of aspiration to the degree that he perceived the others to be like himself or to the degree that he desired to be like them (Chapman & Volkmann, 1939; Festinger, 1942). More recent investigations have shown that a person can be directly influenced by others to place his level of aspiration at a particular point and to evaluate his performance in terms of the level proposed for him (Stotland, et al., 1957; Zander, Natsoulas, Thomas, 1961).

A quite separate set of studies has appeared, meanwhile, concerned with the power of one social agent over another, different bases of social power (Cartwright, 1959; French & Raven, 1959), and the efforts people make to evade or weaken pressures being exerted upon them by others (Zander, Cohen, Stotland, 1957). Pertinent for the present purposes are the findings that a private belief is more likely to be influenced in certain types of social relationships (e.g., legitimate, expert, referent) than in the absence of these, or in a coercive relationship.

The convergence among the concepts and assumptions in these separate areas of research makes it possible to test hypotheses concerning the effects of social relationships upon coping behavior and the setting of a level of aspiration--hypotheses that are difficult to pose without a blending of level of aspiration theory and theories of social power. Our interest in this study was stimulated by findings from previous investigations (Stotland, et al., 1957; Zander, et al., 1961) which suggested that a person must "internalize" the aspirations others describe for him if he is to work to attain the others' aspirations and to evaluate his efforts in terms of them. The purpose of the present research is to examine whether self evaluations of performances and accompanying coping behaviors do in fact differ when persons are in a situation in which it is likely that they will accept the aspirations others describe for them and when they are in a situation in which it is likely that they will reject such external inductions.

Several major assumptions are basic to the present approach. These are now stated with a general description of derivations one may make from them. Although these assumptions may apply either to persons who attain a level of performance proposed for them by others or to persons who fail to do so, this discussion is limited to individuals who fail to attain the level proposed by others. For convenience in notation, the letter P is used to refer to the person whose behavior we are predicting and the letter O to one or more other persons in P's lifespace.

1. P's evaluation of a given performance is a function of the size (and direction) of any discrepancy between his internal level of aspiration and his level of performance, his score. The internal level

of aspiration is specified since it may, under certain conditions, be different from the overtly expressed level of aspiration. The overt level of aspiration is that level stated by P when describing the score he realistically expects to attain. The internal level of aspiration is the score P covertly attempts to attain. The location of an internal level of aspiration can be approximately inferred from the evaluation P assigns to a given score, the higher his evaluation the lower his internal level of aspiration.

2. Social pressures originating in O are more effective in determining P's cognitions when the pressures are based on referent power than when they are based on coercive power.

Coercive power of O over P is the ability of O to influence P based on O's ability to punish P. Referent power of O over P is the ability of O to influence P based on P's desires to be similar to O. A full discussion of these and other bases of power is available in French & Raven (1959).

In the present experiment three contrasting conditions are presented to Ps: (a) a coercive condition where P is pressed by O to achieve at least a given level of performance, with the threat of punishment if he does not do so; (b) a referent condition where P learns the scores that attractive others have obtained on the task he is to perform; and, (c) a control condition where P has no external standards of performance put before him.

The task P is to perform is one in which his actual level of achievement, or the level of performance described for him by O, can be expressed in a score; the higher the score the more difficult it is to achieve. On

such a task each alternative score is a potential internal level of aspiration for P. Assuming that an internal level of aspiration is a cognition, it follows from the second assumption that P will place his internal level of aspiration closer to the level he perceives originating in O when he has a referent relationship with O than when he has a coercive relationship with O (cf. Rosenfeld & Zander, 1961).

3. When P's score is discrepant from his internal level of aspiration, forces are generated in P to decrease this discrepancy. The larger the discrepancy the stronger these forces.

In a case where P performs below his internal level of aspiration on a given trial, these forces are assumed to evoke, in anticipation of the next trial, either a lowered level of aspiration, an improved score, or both. A P in the control condition, for example, may be expected over a series of trials to reduce any gap between his scores and his levels of aspiration in either or both of these ways. First, perhaps, working until he reaches the ceiling of his ability and then lowering his level of aspiration when it is apparent to him that he cannot further raise his score. But a person placed under coercive or referent power, when exposed to levels of performance originating in O which are beyond the ceiling of his ability, has quite different problems in his efforts to reduce a discrepancy between his score and his internal level of aspiration.

In such a situation, a P in a referent relationship with O will experience strong forces from O to maintain his internal level of aspiration at a level beyond the upper limits of his performance. At the same time, as stated in assumption three, forces will be on P to reduce the discrepancy between his level of aspiration and his score. P may seek to

decrease this discrepancy by improving his score, a behavior which incidentally will also serve to make him more similar to O.

A P in a coercive relationship with an O who is attempting to get P to place his level of aspiration above the ceiling of his ability will not experience strong forces on his internal level of aspiration. In a series of trials, therefore, a P in a coercive relationship with O will lower his internal levels of aspiration when this is necessary to decrease a discrepancy between his level of aspiration and his scores, and will have no strong tendency to improve his scores.

Where the levels of performance originating in O are higher than P can attain despite his full efforts to do so, it follows that the average discrepancy between his internal levels of aspiration and his scores is likely to be greater in a referent relationship than in a coercive one. Given this situation, a P in a referent relationship will evaluate a given score lower than a P in a coercive one.

In effect, we propose that a P in a referent relationship will set his internal levels of aspiration in accord with those originating in O and will work hard to attain those levels, whereas a P in a coercive relationship will resist influence attempts to raise his internal levels of aspiration above his scores. A referent relationship, thus, generates acceptance and a coercive relationship generates resistance to social pressures originating in O. We expect to find evidence of these contrasting tendencies toward O accompanying the above mentioned decisions by P. In a referent situation, for example, P should be attracted toward O, desire to have continued relationships with him and state that O's influence attempts are acceptable to him. In a coercive relationship, in contrast,

P should be little attracted to O, desire to avoid further association with him, and discredit the effectiveness of O's influence attempts upon him.

The performance of a task requires the use of one or more abilities. We assume that there is a ceiling to P's abilities in his task beyond which he cannot perform even though he might aspire and try to do so. Where a discrepancy exists between his score and his internal level of aspiration, then, it is clear that this gap may be reduced, by means of improvement in his score, only up to the ceiling of P's ability. When P cannot lower his aspiration or improve his performance enough to decrease the discrepancy between the two, the forces on P to reduce the discrepancy may generate tendencies to discredit the validity of his score and tendencies to discredit the centrality of the ability involved in the score, thereby reducing the importance of the discrepancy or decreasing in phantasy the amount of the discrepancy. From the prediction that the discrepancy will be greater in a referent than in a coercive situation, it follows that discrediting the validity of the score and the centrality of the ability is more likely to appear when P is in a referent relationship than when he is in a coercive one.

Lastly, the various forces and pressures on P may generate emotional tension. Emotional tension is the result in P of forces acting upon him in opposing directions. Indicators of emotional tension are reports of worry, feelings of muscular tension, and the like. We have seen in the above paragraphs that the nature of the opposing forces differ for persons in a coercive situation and for those in a referent one, but it cannot be said with confidence which situation will create the greater emotional tension. We may expect, at least, that control Ss are less

likely to develop emotional tensions than participants in either of the two experimental treatments.

The contrasts anticipated in the behavior of a P in a referent situation and a P in a coercive situation should be further evident by comparing results from these experimental treatments with the results from the control condition. Given that control Ss are subject to almost no social pressures, we expect that the results from the control condition ordinarily will fall between the two extremes represented by the accepting-referent Ss and the resisting-coerced Ss, insofar as reactions to O are concerned. In other respects the behavior of control subjects should replicate the usual findings from "classical" studies on the individual's level of aspiration (Lewin, et al., 1944).

Method

Participants in this experiment were brought into the laboratory one at a time. They were told that they were a member of a team, would meet their mates later, and that their team would compete with teams from other schools. The "test" administered during the experiment was said to be preparatory to this competition.

Subjects

The Ss were 60 high school senior boys in a suburban high school. Each boy met with E in a small examination room of the school health services.

Task

The E introduced himself as an employee of the University Testing Center (a fictitious organization) and explained that he is working on a nation-wide program to test how much "small muscle control" high school students have. This ability was described as a skill in accurate muscular movements as well as a competence to judge how much control one has over these movements. The judgment aspect of the ability was included in order that E's requests for overt levels of aspiration before each trial would appear reasonable.

The nature of the experimental task was briefly explained to the Ss and they were asked to make fifteen practice shots (five shots equal one trial). The task was the Rotter Level of Aspiration Board (1942).

The board, built to the exact specifications provided by Rotter, is four feet long, two inches deep and four inches wide. A groove one and a quarter inches wide and a half inch deep extends the length of the wider surface. A three-quarters inch steel ball is propelled down this groove with a short cue-stick. The object is to make the ball stop as close as possible to a number ten placed beside the groove. Numbers from one to nine are placed three-quarters of an inch apart, decreasing in amount in both directions from the number ten. The number reached by the ball is the score obtained by the S for that shot regardless of whether it is beyond or below the ten. The higher the score, the better S has performed. Small indentations in the groove, next to each number, slow the rolling of the ball and steady it beside one or another number. During the administration of the test the board was raised one and one-half inches at the end distant from the S.

This task was chosen because it is interesting, quickly learned, and requires little native ability. Rotter states that there is little improvement due to learning. Our experience has shown that more careful effort can produce a better score. Rotter has provided norms of typical scores which made it possible to set standards for the Ss which were beyond the ability of most persons and which gradually rose over a series of trials so that the standards from O consistently remained above their ability as the Ss improved with practice.

When the practice trials were finished E described in some detail why this test is a valid measuring device and went on to explain the importance of small muscle control. He described changes in our modern world which make this ability increasingly important. "As we come to depend more and more upon delicate and complicated machinery, more jobs open up which require small muscle control. A jet pilot, for example, needs the ability to a high degree. He must be able to adjust controls quite exactly, making his muscles do what he wants them to do. He must also be able to judge how much error he is likely to make, even when he tries his hardest to be exact....Astronauts will need the skill to a high degree when space travel gets underway. And closer to home: as plants and factories become more automated, using more complicated and delicate machinery such as electronic computers to control production, more and more important and responsible jobs on both a management and employee level will appear and have to be filled....We are testing high school students now so that we can estimate how many men there will be in a few years who have enough ability to fit into such jobs." It was explained that the test today would help S obtain information about himself relevant to the possibility of choosing certain careers.

In order further to increase interest it was stated that the teams will be asked to take additional tests on another day, during which they will be competing against other schools in this state. "The teams will gather in the state capital for a large tournament. Each school will have several 15-man teams. The best team will receive a prize and will be declared the winner." Publicity about this program was being withheld, it was said, until the state tournament was about to be held.

Different instructions now followed depending upon whether the subject was assigned to the coercive, referent or control condition.

Coercive Condition

The coercive condition demanded that Ss be led to believe that potential teammates had the ability to punish them. The punishment in this instance was being expelled from the team and not being allowed to participate in the state tournament.

Subjects were told that at this school three or four extra boys had been chosen for each team. This meant that in order to bring the teams down to 15 members, the ceiling required by the rules, three or four boys must be eliminated from each team. It was said that the job of elimination was being given to a committee of five potential teammates whose names had been chosen from a hat. The names of the boys on this committee, Ss were told, would not be made public. The committee had met, had had the test explained to them, had not taken the test themselves, but had decided just about what score a person ought to be able to achieve on each trial. Ss were told that they would be given the scores that the committee expected of them trial-by-trial and that their own scores would be sent to the committee for judging.

It is important to note that the coercion being exercised by the fictitious committee was doubtless seen as not wholly legitimate, since the committee invented standards on the basis of their best guess about a proper standard rather than on the basis of experience with the test. The effort to create low legitimacy of O was made by E in order to heighten the possibility that Ss would not perceive O's standards as levels Ss must properly accept (French & Raven, 1959; Rosenfeld & Zander, 1961). The names of the committee were described as being "out of a hat" so that these persons would not be likely to become referent models for P. No exact criterion score was stated which would determine whether an S would remain on the team or be expelled. Thus, no S could be wholly certain whether his level of achievement was making him subject to punishment.

Referent Condition

To generate a referent relationship it was necessary to create in Ss a desire to be like O.

In this condition participants were told that a committee of boys had been appointed to be co-captains of the teams from this school. These boys were chosen, it was said, by athletic coaches and teachers of English who respectively could judge the boys on motor control and judgment ability. The boys were also selected on the basis of their ability in leadership. The chosen co-captains were known to be liked and respected by students in this school, it was added, but the members' names were being kept a secret for the present.

"This committee has met and has taken this test. I'll show you their scores," E said, adding "the committee has asked us to send them your scores in order that they may have some idea how well this school's team is likely to do." The Ss were told that they were members of the team and would remain on it no matter what their scores were on this day.

Control Condition

In this situation no social pressures were generated for the subjects. They were told that they were members of the team but no mention was made of requirements placed on them by others or of how well others had done on the test. It was said that a committee of five boys had been chosen by random selection and were to act as co-captains of the teams. E added that he was going to send S's scores to the committee in order that the committee might have some idea how well the teams from this school were likely to perform. Ss were led to believe that they were permanent members of the teams.

Public-Private Treatments

It was assumed in the original planning of this experiment that results would differ when comparing the reactions of subjects in a situation where O would know P's scores and where O would not know P's scores (Stotland & Zander, 1958; Raven, 1959).

In order to generate a public condition, then, Ss were informed that the scores for one half of their trials would be reported to O. To create a private condition Ss were told that the other half of their scores would not be reported and that these trials were for the f practice and information. Appropriate differences in method of recording S's scores and in reporting to S the standards originating in O were developed for the two treatments. Within each influence type, half of the Ss had the private condition first and the other half had the public condition first, thus balancing the effects of sequence in experiencing the two conditions.

The public and private treatments were not different in their effects in any important respects. It is probable that the manipulation was not successful in creating contrasting public and private conditions, either because it incorrectly depended upon the ability of Ss to change their "set" from public to private while most of their cues were the same in both conditions, or because the presence of E was a sufficient audience to make both situations public ones.

Administration of Experiment

The procedure following the above instructions was similar for the two experimental groups. The entire series of scores originating in O (the same for each S) was posted on a large sheet, one score for each trial. Before each trial, S was asked to estimate what his score would be for the next trial. This overt level of aspiration was posted, as well as the actual score obtained by the subject for that trial, in such a manner that

discrepancies among the three entries were obvious to the S. The levels of performance originating in O were in all cases above S's probable best score. Control subjects followed the same procedure, except that no scores from O were mentioned.

Measures

After the first seven trials and after the second seven, Ss were asked to fill out a questionnaire. The questionnaire was introduced as an attempt to obtain P's reactions to the experience so that the Testing Center could improve their tests and so that the Center could better understand the nature of small muscle control. The instrument contained rating-scale queries about self-evaluation, motivation, validity of the test, demands of the O, desire to remain on the team, affective reactions to the situation and emotional tension.

Following the second questionnaire the experiment was declared to be completed. The purposes, deceptions, and the reasons for these were explained and all questions from Ss were answered.

Analysis

The results from this experiment were suitable for study by analysis of variance, using the Type III method proposed by Lindquist (1953). These analyses made it evident that statistically significant effects in the interaction of the experimental conditions with public and private treatments, and with the order of administration of the latter, were so few and irrelevant to the theory that they may be ignored. Results from public and private conditions regardless of their sequence are, therefore, pooled in the next section.

The t tests comparing the differences between the means in the referent, coercive and control conditions were computed by using the error term in the within-subjects sum of squares as the error term when calculating the significance of the differences between means, as suggested by Lindquist (1953, p. 243). Differences between means for the separate experimental conditions were tested for significance only when the F tests for main effects were significant. Values of p in the tables refer to one-tail t tests.

Results

Ability on Practice Trials

On the three practice trials, before instructions to create different experimental conditions were given Ss by E, the average scores of the 20 Ss assigned to each of the experimental treatments were almost

exactly the same. We can be confident then that one experimental group was not superior to the other in the abilities required for the task. These results are shown in the first row of Table 1.

Table 1

Mean Scores and Evaluations of Self

	Control	Coercive	Referent			
	M	M	M	t of differences		
	a	b	c	a-b	a-c	b-c
Scores on practice trials	26.0	26.1	26.6	NS	NS	NS
Scores originating in O (via E)	--	39.4	39.4	--	--	--
Overt levels of aspiration	29.8	33.6	34.4	4.00***	4.89***	NS
Performance scores	28.0	27.8	30.5	NS	2.77**	2.74**
Difference:						
overt levels-performance scores	1.8	5.8	3.9	4.00***	2.14**	1.83
Satisfaction with score	3.4	3.2	2.5	NS	2.64**	2.05**

*$p < .05$.

**$p < .01$.

***$p < .001$.

Overt Levels of Aspiration

The second row of Table 1 shows the mean of the scores put before the Ss and said to be originating in O. When these scores are compared with the mean overt levels of aspiration (third row) it is plain that there is a discrepancy between the two in both the coercive and referent conditions.

The overt levels of aspiration are very similar in the coercive and referent conditions and both are considerably higher than the overt aspirations in the control condition. (Separate inspection of these results trial by trial, not shown in the table, revealed that the similarity in overt aspirations between coercive and referent conditions occurred in the first trial and consistently thereafter.) Subjects in the control condition set their overt aspirations only slightly above their obtained performance scores, as is typically found in studies of aspiration setting (fifth row of Table 1). Coercive and referent Ss, however, placed their overt aspirations much higher than their scores and significantly higher than did the control Ss, suggesting that the social pressures present in the coercive and referent conditions (and absent in the control condition) influenced Ss in these conditions to set higher overt aspirations.

Self Evaluation

We have assumed that a person will set his internal level of aspiration in accord with the level originating in O, more often in a referent relationship than in a coercive one, and that he will evaluate the quality of his performance in terms of his internal levels of aspiration.

The first and subsequent hypotheses should be assumed to have this phrase preceding them: given a situation in which Ps perform below levels originating in O --

Hypothesis 1. Ps in a referent relationship with O evaluate their scores lower than Ps in a coercive relationship with O.

In the last row of Table 1 it can be seen that Ss who had a referent relationship with O were significantly less satisfied with their scores than Ss who had a coercive relationship (and Ss in the control condition). It

seems likely therefore that Ss in the coercive relationship and control condition were evaluating their scores on the basis of lower internal levels of aspiration than Ss in the referent relationship. This last assertion is supported, moreover, in the close similarity between the evaluations of scores made by Ss in the coercive condition and by those in the control condition, indicating that the coerced Ss evaluated their scores on the basis of internal levels of aspiration which were closer to their scores, just as control Ss would be expected to do.

It is clear, moreover, that Ss in the coercive condition did not evaluate their scores by referring to their overt levels of aspiration, since if they had done so the evaluations of their scores would have been considerably lower, given the large discrepancy between their overt levels of aspiration and their scores, shown in row five of Table 1.

Performance on Test

In tho third assumption it was stated that a discrepancy between obtained score and internal level of aspiration generates forces to decrease this discrepancy. We have seen, in the discussion of Hypothesis 1, that Ss in a referent situation seemed to have set higher internal levels of aspiration, while those under coercion appeared to have set lower levels. Consider, then, the performance scores.

Hypothesis 2. Ps in a referent situation perform at a higher level than Ps in a coercive situation.

The results shown in the fourth row of Table 1 indicate that this hypothesis is supported. Referent Ss scored significantly better than coercive Ss and even better than those in the control condition; coercive and control Ss were not significantly different. (On the first trial, a

separate analysis revealed, Ss under coercion scored significantly lower than the Ss under referent power and this difference persisted throughout all trials. Indeed, the trial by trial scores of Ss in the coercive condition were almost exactly the same as those of Ss in the control condition.)

In essence, the coercive relationship appeared to create weaker motivation to do well. We anticipate, then, that participants in the coercive condition will have felt less motivated on the task.

Hypothesis 3. Ps in a coercive situation reveal weaker motivation to reach a high level of performance than do Ps in a referent situation.

The results to be seen in Table 2 provide corroboration for this hypothesis. Subjects in the coercive situation expressed considerably less motivation in response to two queries: (a) "How important is it to you to do well on this test of small muscle control?" and (b) "How hard did you try on the test game-board considering all of your trials here today?" Subjects in referent and control conditions were quite similar in their expressed motivations.

Table 2

Ss Stated Motivation to Perform Well

Query[a]	Control M a	Coercive M b	Referent M c	t of differences a-b	a-c	b-c
How important to you to do well?	5.4	4.4	5.1	2.84**	NS	1.88*
How hard did you try to do well?	5.8	5.1	6.0	2.50**	NS	3.21***

*p < .05.

**p < .01.

***p < .001.

[a]Sense of query rather than full statement, in this and subsequent tables.

P's Attitudes Toward O's Social Pressures

The three experimental conditions placed Ss in different positions in respect to actual or perceived pressures from O. We have seen that the internal aspirations of Ss in a referent relationship were apparently more influenced by social pressures originating in O than were the internal aspirations of Ss in a coercive one. Control Ss had no social pressures acting upon them from O and presumably made their decisions about aspirations on their own. How do attitudes toward any pressures of O compare in the three conditions? In general, we expect to find that control Ss are neutral toward O's potential pressures since O has exerted no influences upon them and created no conflicts for them, coercive Ss tend to be negative toward O's pressures, and referent Ss tend to be positive toward O's pressures.

First, however, it is useful to examine the degree of pressure Ss felt in these three conditions. Data relevant to this matter are shown in the upper three rows of Table 3.

In the first row it is evident that both coercives and referents felt greater pressure from O to do well than did Ss in the control condition. The results from two further queries: (a) "What would probably be the committee's judgment of your small muscle control?" and (b) "What do you think committee members would set as the lowest score a high school student could get for each trial, on the average, and still feel satisfied?" can be seen (in Table 3) to be essentially supportive of the results just noted for felt strength of pressures. Subjects in the control condition perceived O as making weaker demands of them than did Ss in either of the other two conditions. It is of incidental interest that Ss in both the

referent and coercive conditions (all of whom performed below the level originating in 0) perceived that 0 would disapprove of Ss' performances.

Table 3

Attitudes toward Social Pressures Originating in 0

Query	Control	Coercive	Referent	t of differences		
	M	M	M			
	a	b	c	a-b	a-c	b-c
How much pressure did 0 exert on you for higher score?	3.2	4.2	4.7	2.70**	4.05***	1.35
How will 0 rate your score?	3.6	2.9	3.0	2.50**	2.14*	NS
How low a score would 0 accept?	24.8	29.5	31.5	2.76**	3.92***	1.17
How important to do as well as 0 might expect of you?	4.8	4.4	5.6	1.29	2.58**	3.80***
How much do you care about 0's opinion of you?	4.9	3.8	5.2	2.75**	NS	3.50***

*$p < .05$.

**$p < .01$.

***$p < .001$.

The results in the lower two rows of Table 3 are pertinent to the next hypothesis.

Hypothesis 4. Ps in a coercive situation express less acceptance of 0's pressures than do Ps in a referent situation.

Subjects in the referent condition state considerably more intention

to do as well as O might expect of them and express more concern over the opinion O might have of them, than do Ss in the coercive condition. Control Ss are between these two extremes. Note that Ss in the coercive condition are strikingly low in their concern about the opinion O may have of them.

Attractiveness of Relations with O

Hypothesis 5. Ps in a coercive situation perceive O as less attractive than do Ps in a referent situation.

Questions were asked concerning how much Ss desire to remain as members of the team, how much they guess they might like O in future contacts, and how much they desire to be like O. The results from these queries are summarized in Table 4. They reveal that Ss in the coercive condition are less attracted to O than are Ss in either the referent or control conditions. It seems reasonable that the participants in the control situation should be attracted to O since, as earlier noted, they are reasonably satisfied with their scores and presume that O approves of their scores. The strong attraction for O presented by referent Ss, and their expressed desire to be similar to O, are indications of their readiness to adopt the standards of performance originating in O, as proposed by French and Raven (1959) and Cartwright (1959). The rejecting reactions revealed by Ss in the coercive situation indicate, as French and Raven and Cartwright have also suggested, that a P who is coerced seeks to avoid a relationship in which coercive power can be used upon him, especially where it is probable that punishment may be forthcoming for his behavior.

Table 4

Perceived Attractiveness of Other Members and Group

Query	Control M a	Coercive M b	Referent M c	t of differences a-b	a-c	b-c
How much desire to remain on team?	5.8	4.3	5.2	3.26***	1.30	1.96*
How well might you like Os as persons	5.2	4.2	5.5	2.70**	NS	3.51***
How much do you desire to be like Os?	5.0	4.4	5.7	2.50**	2.91**	5.42***

*$p < .05$.

**$p < .01$.

***$p < .001$.

Validity of Score and Centrality of Ability

We have examined results which suggest that Ss in the control and coercive conditions were able to reduce a discrepancy between their levels of aspiration and their scores, while Ss in the referent condition seemed less able to reduce such a discrepancy. We anticipate that the continued forces on referent Ss to reduce this discrepancy generate tendencies to perceive the test as invalid or to perceive the ability involved in the test as less central in the structure of the self.

Hypothesis 6. Ps in a referent situation discredit the validity of the test more than those in a coercive situation.

Hypothesis 7. Ps in a referent situation discredit the centrality of the tested ability more than those in a coercive situation.

The results to be seen in Table 5 do not support either of these hypotheses. Subjects in the referent and coercive situations are very similar in the degree they discredit the validity of the test and the centrality of the ability. The control Ss, in contrast, are considerably more positive, especially in respect to how central the ability is.

Table 5

Attitudes toward Validity of Score and Centrality of Ability

Query	Control	Coercive	Referent			
	M	M	M	t of differences		
	a	b	c	a-b	a-c	b-c
How well does score truly describe your ability?	4.5	3.6	4.0	2.43*	1.35	1.08
How important is it to be good in this ability?	6.2	5.4	5.4	2.58**	2.58**	NS

*$p < .05$.

**$p < .01$.

That referent Ss should hold negative opinions about the test and abilities was expected. But why were coercive Ss so unfavorable in their feelings? The coercive Ss presumably had little discrepancy between their internal levels of aspiration and their scores and thus presumably had weak forces on them to discredit the test and the ability.

A reasonable explanation is that even though coercive Ss had little discrepancy between their internal levels of aspiration and their scores, they still had a glaring discrepancy between their scores and the standards put before them by O and an apparent discrepancy between their internal levels of aspiration and the standards originating in O. These latter two discrepancies perhaps caused the coercive Ss to perceive a strong likelihood of disapproval from O. Subjects under coercion, therefore, in seeking to discredit the test and the centrality of the ability were apparently attempting to weaken the impact of the probable disapproval and rejection from the team by trying to convince themselves that the testing procedure was trivial.

Emotional Tension

Tension was anticipated in both the referent and coercive Ss because of forces on them to reduce the discrepancy between performance and internal level of aspiration, opposed by felt pressures to raise the level of aspiration. Control Ss, however, are assumed to have been under little emotional tension.

Hypothesis 8. Emotional tension will be greater in Ps in both the referent and coercive conditions than in the control condition.

The results in Table 6 corroborate this hypothesis. Subjects in both coercive and referent situations felt more worried during the test and alleged that they were more often too tense to shoot well than did Ss in the control condition. In respect to "worry," the coercive and referent Ss were significantly different from one another. The amount of emotional tension expressed by referent Ss was strikingly greater than that mentioned by control Ss, with coercive Ss falling between these two extremes. The results suggest that referent Ss were under more tension than were coercive Ss.

Table 6

Emotional Tension Indicated by Ss

Query	Control	Coercive	Referent	t of differences		
	M a	M b	M c	a-b	a-c	b-c
How often were you worried during session?	2.8	3.7	4.1	2.90**	5.16***	2.26*
How often were you too tense to shoot well?	3.0	3.8	4.4	1.90*	3.33***	1.43

*p < .05.

**p < .01.

***p < .001.

Summary

Individual Ss were observed in a situation similar to the one used by Rotter (1942) for studying the level of aspiration, while they were to perceive themselves as members of a team which was not physically present. In two experimental conditions (referent and coercive) the Ss were provided standards of individual performance, for a series of trials, said to originate in other members of their team. Events were so arranged that Ss, over the series, did not attain the performance levels put before them by the others. In a third condition (control) Ss were not provided standards of performance from others. Assumptions were made that: (a) scores are evaluated in terms of internal levels of aspiration; (b) referent social pressures more strongly influence cognitions (e.g., internal levels of

aspiration) than do coercive social pressures; and (c) a discrepancy between an internal level of aspiration and an obtained score generates forces to reduce this discrepancy.

Several hypotheses concerning self evaluation and performance were corroborated, where all Ss scored below the levels proposed for them by others.

1. Ps in a referent relationship with O evaluate their scores lower than do Ps in a coercive relationship with O.

2. Ps in a referent situation obtain higher scores than do Ps in a coercive situation.

3. Ps in a coercive situation reveal weaker motivation to reach a high score than do Ps in a referent situation.

Several hypotheses, comparing the reactions of failing Ss who are in coercive and referent relations with others, received support.

4. Ps in a coercive situation perceive O as less attractive than do Ps in a referent situation.

5. Ps in a coercive situation state less acceptance of O's social pressures than do Ps in a referent situation.

6. Emotional tension is greater in Ps either in referent or coercive situations than in Ps under no social pressures in the control condition.

Two other hypotheses were not satisfactorily confirmed.

7. Ps in a referent situation discredit the validity of the test more than do Ps in a coercive situation.

8. Ps in a referent situation discredit the centrality of the tested ability more than do Ps in a coercive situation.

References

Cartwright, D. A field theoretical conception of power. In D. Cartwright (Ed.), Studies in social power. Ann Arbor, Mich.: Inst. for Soc. Res., 1959.

Chapman, D. & Volkman, A. A social determinant of the level of aspiration. J. abnorm. soc. Psychol., 1939, 34, 225-238.

Festinger, L. Wish, expectation, and group standards as factors influencing level of aspiration. J. abnorm. soc. Psychol., 1942, 37, 184-200.

French, J. R. P., Jr. & Raven, B. The bases of social power. In D. Cartwright (Ed.), Studies in social power. Ann Arbor, Mich.: Inst. for Soc. Res., 1959.

Lewin, K., Dembo, Tamara, Festinger, L., & Sears, Pauline. Level of aspiration. In J. McV. Hunt (Ed.), Personality and the behavior disorders. New York: Ronald, 1944.

Lindquist, E. Design and analysis of experiments in psychology and education. Boston: Houghton Mifflin Co., 1953.

Raven, B. Social influences on opinion and the communication of related content. J. abnorm. soc. Psychol., 1959, 58, 119-128.

Rosenfeld, H. & Zander, A. The influence of teachers on aspirations of students. J. educ. Psychol., in press.

Rotter, J. Level of aspiration as a method of studying personality. J. exp. Psychol., 1942, 31, 410-422.

Stotland, E., Thorley, S., Thomas, E., Cohen, A., & Zander, A. The effects of group expectations and self-esteem upon self evaluation. J. abnorm. soc. Psychol., 1957, 54, 55-63.

Stotland, E. & Zander, A. Effects of public and private failure on self evaluation. J. abnorm. soc. Psychol., 1958, 56, 223-229.

Zander, A., Cohen, A. & Stotland, E. Role relations in the mental health professions. Ann Arbor, Mich.: Inst. for Soc. Res., 1957.

Zander, A., Natsoulas, T., & Thomas, E. Personal goals and the group's goals for the member. Hum. Relat., in press.

III.

Test-Failure, Social Support, and Coping Behavior

This report describes one of several studies into the effects of authority figures upon aspirations and into the use of coping behavior by an influenced person where these aspirations are inappropriate for him. Specifically, we examine two issues: (a) the contrasting use of coping behaviors when an attempt is made to influence a person's aspirations and when no attempt is made to do so; (b) the effects of social support from peers upon the choice of coping behaviors.

It has been demonstrated many times that a person who perceives he has performed below his level of aspiration on a task reduces his aspiration in anticipating a new trial on the same task. The purpose for lowering his level of aspiration, we assume is to protect himself against a loss in self-evaluation; granting that this judgment of himself is determined by the amount his performance exceeds or is short of his level of aspiration. We define the level of aspiration as the standard by which a person judges his own performance as a success or a failure, or judges whether he is up to what he expects of himself (English & English, 1958).

Efforts to prevent a loss in self-evaluation are designated as coping behaviors. Thus, lowering the level of aspiration is one form of coping behavior. Other examples are: trying to improve subsequent performances, denying the validity of the performance score, or derogating the importance of the ability involved in the performance.

Lowering the level of aspiration or improving the level of performance following a degree of achievement that is below the level of aspiration, are

clearly types of coping behavior because they serve to decrease the discrepancy between aspiration and performance and thus reduce the unfavorableness in the self-evaluation. But efforts to derogate the validity of the score or to derogate the importance of the ability involved are less obviously ways of protecting against loss of self-evaluation. Imagine that the task on which the person has set a level of aspiration and on which he has performed poorly is a test which is perceived by the testee to be a measure of given ability. In such an event the subject is interested not only in his score per se, but also in the score as an indicator of his ability. Presumably, the person will have a preference for a given degree of the ability, and thus expects to obtain the score on the test which indicates that he has the amount of the ability he values. Two separate dimensions, then, are invoked by participation in the test, one a measure of his performance on the test and the other a measure of his ability. When the testee perceives that his score is lower than he had aspired to reach, he may reduce the impact of his score upon his self-evaluation by perceiving that his score indicates a higher level of ability than he had originally believed, by denying that the score is an accurate indicator of his level of ability, or by denying that the ability is an important attribute for a person to have.

In many situations a person has social pressures put upon him to place his level of aspiration at a particular level. A student, for example, is expected by teachers to perform at the ceiling of his capacity and to reach a certain proficiency in examinations on the content of the course. Suppose a student places his level of aspiration at the location the teachers desire of him and suppose that he does not achieve that level. Coping actions can then be viewed as violations of the social pressures

originating in the teachers, since the coping actions imply a rejection of the standards imposed by the teacher and a rejection of the teachers' values concerning the validity of the test or the importance of the ability. What differences in coping behavior might we expect when a person has social pressures on him to set a given level of aspiration compared to when he is without such pressures acting upon him?

The fact that a person may be influenced to set his level of aspiration at the point pressed upon him by others has been observed by Zander, Natsoulas & Thomas (1960), Rosenfeld & Zander (1961) and Zander & Curtis (in press). If he fails to reach the level he has been induced to accept, he will have forces upon him to engage in coping behaviors. He will, for example, be pressed to lower his level of aspiration to a point somewhat closer to his immediately past performance. At the same moment, however, he experiences strong demands from the agent of the social pressures to maintain his level of aspiration at the level proposed by the agent. We expect then that a person without social pressure upon him (toward setting a particular level of aspiration) will lower his level of aspiration more, following a poor performance, than will a person with social pressures acting upon him.

Because, as earlier stated, a lowered level of aspiration allows the individual to evaluate an immediately past performance less unfavorably, we may assume that persons who lower their levels of aspiration will have less unfavorable evaluations of their immediately past performances than persons who do not lower their aspirations. It follows that persons who are not subject to social pressures to accept a specific level of aspiration would evaluate a poor performance less unfavorably than persons who have such pressures acting upon them.

But lowering the level of aspiration, we have noted above, is only one form of coping behavior. Because lowering the level of aspiration reduces the unfavorable evaluation a person gives to his own poor performance, and thus reduces the need for engaging in other forms of coping behavior, we anticipate that coping behavior such as derogation of the validity of the test or denial of the importance of the ability will be used less often where the level of aspiration is lowered.

It is useful to observe that the level of aspiration as defined above has two related but separable aspects within it. The first is that the level is a criterion whereby a person judges the goodness of his performance. The second is that the level is an indication of what the person expects to do on his next performance; this expectation being the resultant of his perception of the attractiveness of attaining a given score and the probability of attaining it (Lewin, et al., 1944). The first aspect we think of as the critical level a person desires to reach in order that he will protect himself against a loss of self-evaluation. It is measured by a query such as: "What level of performance should a person attain in order to be satisfied with himself?" This is a value judgment based on what score would be seen as acceptable to his image of himself. The second we think of as the realistic level of aspiration, measured by a query such as: "What score do you realistically expect to attain?" This is a rational judgment, based on past experience and the probability of future success or failure. Results from both measures are assumed to be highly similar in the absence of social pressures.

We further assume that both levels of aspiration can be lowered as a coping action, and that both the critical and the realistic aspects

of the level of aspiration can be influenced by external agents, but different approaches would be needed for each. When attempting to influence the critical level, for example, an agent would need to stress what score a student should get in order to have a satisfactory performance. And, when attempting to influence the realistic level, the agent would need to stress the attractiveness or probability of attaining a given score.

The reason the distinction between critical and realistic aspects of the level of aspiration is emphasized here is that it was more feasible in the present study for the external agents (E and peers of subjects) to attempt to influence the critical level than the realistic level, since the level of aspiration was being set in respect to a task in which subjects had little experience. Measurements have been made in the present study of both the critical and realistic levels of aspiration, but social influences, it will be assumed, are brought to bear only upon the critical level. These pressures from external agents will be designated as standards of performance.

Social Support for Coping Behavior

Consider, now a group all of whose members have social pressures upon them from some authoritative source to accept a given level of aspiration. A classroom of students in their relations with a teacher is an appropriate example. Suppose that all the members of such a group fail in fulfilling the standards set for them by the teacher. Separately each student, we assume, will be inclined to adopt those actions or views which reduce the threat of loss in self-evaluation. The students may perceive, however, that the teacher not only proposes a particular standard of performance but also disapproves of any use of coping behavior such as lowering the level of aspiration or denying the validity of measures of

his performance or the importance of the ability involved. The result for each student is a situation in which he is uncertain how he should act or what he should believe.

Imagine that the group of students who have performed poorly are allowed to interact with one another. Because the desire to remove the threatened loss of self-evaluation is uppermost for them, we assume that oral or gestural cues may be communicated which would strengthen one another's resolve to engage in coping behavior. Such social support we conceive as a form of social reality. We assume that a set of persons who are uncertain as to the appropriate belief or action to adopt in a given situation become aware of any common point of view among them, which then takes on a (social) reality as the proper way to act or believe. Schachter (1951 and 1959) has shown the importance of social reality as a form of social support for beliefs which cannot be based upon objective data. Where social reality develops which is contrary to the social pressures applied by the person in authority, we assume it will aid group members to overcome the restraints the person in authority exerts against the use of coping behavior. Thus, the more conditions are conducive to the development of social reality in support of coping behavior the more persons who have performed poorly will engage in coping behavior, despite social pressures against doing so.

The present experiment was designed to study the arousal of coping behavior in conditions such as those described. Students in small groups were given a test of "insight," an ability which was carefully described as a crucial determinant of success in modern society. Half of the groups were told a specific score they should achieve in order to be sure to have an adequate amount of this important ability. The other half of the groups

were not given any information about an appropriate score. All subjects "earned" low scores. Following this, an "emergency" arose which required that the subjects wait in the room for ten minutes. For half of the groups the experimenter left the room during this emergency period, taken to be a condition in which social reality in support of coping behavior might develop. In the other half of the groups the experimenter remained in the room, "finishing work for the next step in the experiment," taken to be a condition in which cues necessary for the development of social reality in support of coping behavior would be less likely to appear. In addition, a small number of groups were given very high scores, in order to have a control condition where the attitudes of persons, in the areas conceived as coping behaviors, among those who had no need to cope with a threatened loss of self-evaluation might be observed.

Method

Subjects

The participants in this expe riment were 275 twelfth-grade boys in four high schools. All available boys were assigned to take part in a "testing program" by the principal of the school.

Task

The E was presented to Ss as a representative of the University Testing Center (a fictitious organization) who was concerned with the testing of insight as an ability. E met with the Ss in groups of six members.

E first gave a brief talk to the boys about the nature and importance of insight as an ability. He strongly stressed the value of insight in modern society, emphasizing that the great value of this ability had only recently been recognized. The purpose of these remarks was to establish insight ability as an important personal characteristic and to induce the Ss to desire high ability in insight.

E then explained that he was to give the Ss a test intended to measure the amount of insight ability they have. He stated that the test had been developed by scientific means and was known to be a valid test of

ability in insight, taking some pains to describe the meaning of validity. The purpose of the latter comments was to ensure that all Ss had similar information about the test and to set up cognitive restraints against casual derogation of the test's validity as a form of coping behavior. Thus, an S who derogated the validity of the test had to deny the testimony he had been given by a person who was clearly an expert in such matters.

Ability in insight was chosen as the personal characteristic to be measured on the assumption that its intuitive meaning for the Ss might be amplified in such a way that it could reasonably be claimed to be an important attribute. This ability is also one on which the Ss are likely to have no accurate judgment of themselves and therefore no previous aspirations. Furthermore, a test of this ability could easily be constructed in which Ss would have no clear criteria for distinguishing wrong answers from right answers and thus could not have objective evidence which might make them doubt the scores they earned on the test.

The test consisted of twenty questions. Each question posed a dilemma in which an individual might find himself. The S was asked to choose which of several alternative reactions to the situation was the more likely to be used by people. Each of the alternatives was a reasonable reaction in the given circumstances. The test was not scored, indeed it was in no true sense a measure of insight and thus could not be scored. The scores provided the Ss were entirely fictitious.

Standard and No-standard Treatments

Half of the groups were then given instructions intended to induce in the Ss a specific critical level of aspiration. This is designated as the standard condition. These Ss were informed that a score of fifteen was the score on the test which indicated that a high school student had a satisfactory amount of insight ability. The other half of the groups were given instructions which were intended to allow an S to set his own critical level of aspiration, designated as the no-standard condition. For these Ss the E stated that although psychologists had shown the test to be a valid one for adults, it was not yet known what score a high school student should earn in order for him to have a satisfactory amount of insight ability.

Scores Earned by Ss

All Ss in both the standard and no-standard conditions were given low scores, a six, a seven, or an eight. Scores were made somewhat different in order to avoid suspicion, yet all were low enough to be likely to generate surprise. The members of five additional groups (within the standard condition), however, were given high scores, a point or two better than the standard of fifteen. These are hereafter designated as the success groups. They serve as controls for Ss in the low scoring conditions, providing a set of responses among persons who were in a situation with a minimal threat to loss of self-evaluation.

After the test had been completed, but before they were given their scores, the Ss were asked to state what score they expected to receive on the test. This response is designated as the naive level of aspiration since it is based on incomplete information about their performance on the test. We assume that the naive level indicates (though uncertainly) what criterion Ss would use in the first evaluation of their scores.

Secret and Exposed Discussions

Each S was given his score on a small slip of paper, privately. Immediately thereafter, E announced that an emergency had arisen which demanded his attention for about ten minutes. He apologized for the interruption in the experiment and asked them to remain in the room, adding that they were free to talk about anything (including the test) that they wished. The distinct impression was created that this was an unusual and unexpected interruption in the testing procedure. For half of the groups, E then left the room. He remained out of sight and did not listen to the discussion. This is designated as the secret discussion. For the other half of the groups, E made the same announcement about the emergency, but here he sat himself to work on papers before him, obviously within earshot and in sight of the Ss. This is designated as the exposed discussion.

Post-Experimental Questionnaire

Following the ten-minute interruption E returned to the groups and distributed a Student Opinion Questionnaire, stating that it was intended to determine their reactions to the test so that the test might be improved where necessary. This instrument contained queries concerning Ss levels of aspiration in anticipation of a repetition of an insight test (realistic level of aspiration), their perception of what a student should earn on such a test (critical level of aspiration), their perception of the validity of the test and the importance of insight ability, and their attitudes toward E. Upon completion of this questionnaire they were given one final question on a separate sheet asking Ss "what did you talk about during the ten-minute free period?" This query was provided after other questionnaires had been completed since it revealed to the Ss that the interruption was not in fact an unusual emergency, but rather a planned event.

After the questionnaires, Ss were told the purposes of the study and all deceptions were explained. They were asked to withhold information about these deceptions from their schoolmates for several days until the testing had been finished in their school.

Results

We first consider the effects of the standard and no-standard treatments upon the employment of coping behavior, holding the nature of the discussion among the Ss constant.

Naive Level of Aspiration

It will be recalled that the test given to the Ss had twenty questions. Half of the Ss were told that fifteen correct answers was a minimally good score (standard treatment) and the other half were told that it was not known what score was minimally good (no-standard treatment). All Ss received low scores with a mean of about 6.20. Before being given these scores, however, the Ss were asked what score they expected to have earned on the test, their naive level of aspiration.

In the standard treatment the mean naive level of aspiration was 13.91, just a bit lower than the described standard of fifteen. In the no-standard treatment the naive level of aspiration was 13.79, not significantly different from the naive level in the standard treatment. Both groups, then, chose about the same naive aspiration, apparently assuming that around 70 per cent correct was a minimally good score, as it is in most examinations. The S.D. in the standard treatment was significantly smaller than the S.D. in the no-standard treatment, indicating that a greater spread of answers prevailed where no standards were given the Ss, probably an indicator of greater uncertainty in selection of the naive level where no-standard was provided.

It seems reasonable to assume that their low scores were seen by Ss as unexpectedly low and perhaps as a threatening source of low self-evaluation.

Evaluation of Score

Following receipt of their scores, Ss participated in the secret or exposed discussions. At the end of this time they completed questionnaires.

A variety of rating-scale queries were concerned with evaluations of their performances. Examples: (a) How well did you do on the test? (b) Was your performance a success or a failure? (c) Was your score satisfying or dissatisfying to you? For each of six measures Ss in the standard condition evaluated their performances significantly lower than Ss in the no-standard condition. When all results were combined (by summation) into a general index of self-evaluation, the means for this index were 3.66 in the no-standard condition and 3.22 in the standard condition. These are significantly different by t test at the .01 level of probability. It is evident that the Ss in the standard treatment evaluated their performances lower than those who had no standard put before them. In the success condition, incidentally, Ss obtained a mean of 5.55 on this index, clearly approving of their achievements.

Levels of Aspiration

The fact that Ss in the no-standard condition had a higher self-evaluation than Ss in the standard condition suggests that the no-standard Ss lowered their levels of aspiration more sharply after they had learned their scores than did the standard Ss, thereby making it possible for them to evaluate their scores less unfavorably.

An examination of the realistic levels of aspiration Ss set for themselves indicates that Ss in the standard and no-standard conditions chose quite similar levels (Standard Mn. = 9.77, No-standard Mn. = 9.19). Thus, it is evident that the differences in self evaluation noted above were not due to differentials in the lowering of realistic levels of aspiration. Clearly too, the standard proposed by E concerning what a high school student should get did not determine the realistic levels of aspiration.

We have assumed that Ss had a critical level of aspiration, that is, a conception of what a high school student should get on this test in order to be satisfied with himself. Obviously, Ss in the standard condition had more authoritative information on what a student should obtain since E directed his remarks to this matter. We expect to find, then, that Ss' critical levels of aspiration are placed lower in the no-standard condition than in the standard condition.

The results in Table 1 are relevant here. In the first row are shown the mean scores Ss perceived the E to believe a high school student should obtain "in order to feel satisfied with himself." It is evident that the Ss in the no-standard condition attributed to E a score which was very similar to their realistic level of aspiration (Mn. = 9.82), while Ss in the standard condition stated about what E had previously suggested was an adequate score (Mn. = 14.38). The score that Ss in the standard condition attributed to E, however, was significantly lower than the score of fifteen that E had earlier stated as a satisfactory score ($p = .05$), indicating that they distorted E's comments in a downward direction. We conclude that Ss in the no-standard condition believed that E had a lower level of expectation for what a high school student should get than did those in the standard condition.

In the next two rows of Table 1 the mean responses of Ss are shown when they were asked to describe their critical levels of aspiration (in two different contexts, to be explained in a moment). In both rows the Ss in the no-standard condition state a significantly lower critical aspiration than do Ss in the standard condition. In the fourth row it is evident that Ss in the standard and no-standard conditions attribute beliefs to their groupmates which are similar to their own.

Table 1

Mean Critical Levels of Aspiration Perceived by Ss in Standard and No-standard Conditions

	Standard N=119 (a)	No-standard N=126 (b)	Standard-success N=30 (c)	t of col. diffs. a-b	a-c	b-c
1. What score does E think HS student should get?	14.38	9.82	15.83	11.81**	4.72**	16.69**
2. What score should HS student get?	12.78	11.73	15.93	2.07**	7.05**	4.20**
3. What score should HS student get? (social awareness context)	11.74	10.74	16.33	2.28*	9.66**	14.80**
4. What score do groupmates think a HS student should get?	11.92	10.40	15.96	3.33**	10.69**	14.26**
t of row diffs. 1-2	3.77**	5.75**	N.S.			
2-3	3.54**	3.61**	N.S.			
3-4	N.S.	N.S.	2.87**			

*p = < .05.

**p = < .01.

***p = < .001.

In short, Ss in the standard condition, as compared to the no-standard, had higher criteria for judging their performances and assumed that others did so too. It is reasonable, then, that Ss in the standard condition should have evaluated their performances less favorably and we may anticipate that Ss in the standard condition will have engaged in more forms of coping behavior, other than lowering levels of aspiration, than those in the no-standard condition.

But these responses were given at the end of the experiment, thus, were they not affected by facilitative distortion? We have already noted that Ss in the standard condition tended to distort E's standards in a downward direction. The results in row two compared to those in rows three and four are also pertinent to this question. They suggest that distortion occurred in a direction indicating that Ss attributed to others what they wished to have the others believe. In row two the S was responding to the query: "In your opinion, what score on this Test of Insight should a high school student get in order to feel comfortably satisfied with himself?" In row three the results again concern his own responses to the same question, but now in the context of giving his "best guess about what score. . .each student with you feels a high school student should get." He was specifically asked to include himself along with his responses about the others, and thus was responding about his own critical level of aspiration while clearly aware of what he believed others would feel. In row four are the means of all the scores he attributed to others in his experimental group, excluding himself. It can be seen that lower scores are given when the S is aware of what others believe (rows three and four) than when he is answering the question without being as aware of what others believe (row

two). The S apparently perceives, in sum, that others set lower standards for what a high school student ought to get than he himself set in response to this query.

It is noteworthy, moreover, that the successful Ss set a critical level of aspiration which was over fifteen and believed that others would expect as much. The realistic levels of aspiration among the successful Ss were also significantly higher than the realistic levels of aspiration set by Ss in both the standard and no-standard conditions.

Perceived Validity of the Test

A total of six queries were concerned with the Ss attitudes toward the adequacy of the test as a measuring device. Will Ss in the standard treatment give less favorable reactions to the test than those in the no-standard treatment? The specific questions can be seen in Table 2.

Table 2

Perceived Validity of Test in Standard and No-standard Conditions

	Standard N=119 (a)	No-standard N=126 (b)	Standard-success N=30 (c)	t of col. diffs. a-b	a-c	b-c
Test good measure of ability?	3.62	4.14	5.37	2.56*	5.38**	3.81**
Test score fair or unfair?	3.95	4.35	5.[illegible]	2.04*	5.83**	4.52**
Test score worth anything?	4.35	4.83	5.60	2.99**	4.43**	2.75**
Test score wrong or right?	3.68	3.92	5.77	1.26	9.21***	7.37**
How favorable are you to test?	3.52	4.41	5.63	5.43**	7.93**	4.62**
How favorable are others to test?	17.58	21.37	25.80	4.75**	6.86**	3.89**

*p = < .05.

**p = < .01.

***p = < .001.

We observe in the table that the Ss who succeeded were significantly more favorable concerning the "goodness" of the test than were the Ss who received low scores. It is readily understandable that they should perceive the test as a valid measuring instrument.

Among the Ss given low scores, those in the standard condition, however, attached less validity to the test than the Ss who were not given a standard; they were also less favorable toward the instrument, and assumed that their peers similarly viewed the test with disfavor.

Importance of Insight Ability

Queries were directed toward determining the amount of importance the Ss attributed to the possession of ability in insight. These questions are shown in Table 3. It can be seen that persons who received high scores significantly more often approved of the test and assumed that others did so than did Ss in the other treatments. Subjects with low scores in the standard treatment attributed less importance to ability in insight than did those who did not have a standard.

Table 3

Importance Attributed to Ability in Insight in Standard and No-standard Conditions

	Standard N=119 (a)	No-standard N=126 (b)	Standard-success N=30 (c)	t of col. diffs. a-b	a-c	b-c
Importance of ability for high school student	4.69	5.13	5.00	2.80**	1.24	1.20
Importance of ability to you	4.16	4.63	5.50	2.17*	3.87**	2.53*
Is score important?	3.95	4.37	5.20	1.96*	3.68**	2.41**

*p = < .05.

**p = < .01.

Attitudes toward Experimenter

Persons may attempt to cope with a threatened loss of self-evaluation by derogating the experimenter who is the agent of the social pressures to do well, or by distorting his intentions. Ss who, for example, wish to derogate the validity of the test or the importance of the ability might more freely do so if they perceive that the E shares their point of view. It is relevant to recall, however, that E had spoken with considerable stress, in his opening remarks, on the validity of the test and on the importance of ability in insight for success in life.

The only noteworthy result in Table 4, comparing standard and no-standard treatments, reveals that Ss in the standard treatment perceived E to believe that insight ability was less important, a clear distortion of E's comments, since he had made similar remarks about importance of the ability in both conditions. It is noteworthy that Ss in the success condition perceived E as being an expert on validity of the test and liked E more than did Ss who had received low scores.

Summarizing results thus far, we have seen that Ss in the standard treatment evaluated their performances less favorably; believed, and perceived that peers and E also believed, a high school student should earn a high score; attributed less validity to the test; perceived peers as less favorable toward the test; saw insight ability as relatively less important, and believed that peers and E perceived insight ability as less important; than did Ss in the no-standard treatment. Ss in the no-standard and standard conditions were similar in their realistic levels of aspiration. In general, Ss with an imposed standard showed more inclination to use coping behavior, other than lowering of the level of aspiration, than did Ss without a standard.

Table 4

Attitudes toward Agent of Social Pressures in Standard and No-standard Conditions

	Standard N=119 (a)	No-standard N=126 (b)	Standard-success N=30 (c)	t of col. diffs. a-b	a-c	b-c
How much does E know about validity of test?	4.94	4.60	5.83	1.89	2.15**	3.38**
How much does E know about importance of insight ability?	5.13	5.29	5.40	NS	NS	NS
How important does E think ability in insight is?	5.05	5.51	5.50	3.01**	1.89	NS
How much do you like E?	5.35	5.31	6.00	NS	2.75**	2.95**

*p = < .05.

**p = < .01.

Effects of Discussions

We turn now to the consequences of the secret (E absent from room) and exposed (E present in room) discussions. How did these experiences modify the coping behavior within the standard and no-standard conditions?

Evaluation of performances. The mean self-evaluations in the secret and exposed discussions were not significantly different. There was a tendency for Ss in the exposed discussion groups in the standard condition to have a lower evaluation of their performances than those in the secret discussions.

Levels of aspiration. Realistic levels of aspiration among the separate discussion conditions were not significantly different. Critical levels of aspiration are shown in Table 5.

Table 5

Mean Critical Levels of Aspiration in Separate Conditions of Discussion

	Standard		No-standard		
	Secret N=59 (a)	Exposed N=60 (b)	Secret N=63 (c)	Exposed N=63 (d)	Sig. ts in col. diffs.
What score does E think HS student should get?	13.48	15.02	9.83	9.29	a vs. b = 2.37* b vs. d =10.01***
What score should HS student get?	12.90	13.65	11.83	11.27	b vs. d = 2.74**
What score should HS student get? (social aware. context)	11.28	13.43	10.79	10.53	a vs. b = 2.31* b vs. d = 3.12**
What score do your groupmates think a HS should get?	11.76	12.43	10.86	9.96	b vs. d = 2.92**

*p = < .05.

**p = < .01.

***p = < .001.

Note first that Ss in the exposed-standard discussion attributed to E almost exactly what he had suggested a high school student should get. Ss in the secret-standard discussion, however, were significantly lower in what they attributed to E, whereas those in secret and exposed discussions in the no-standard condition did not differ in what they attributed to E. Ss in

the exposed discussion in the standard condition set higher critical levels of aspiration than did Ss in other conditions in the experiment and attributed similar levels to their peers. As one might expect, the greatest difference between secret and exposed discussants in the standard condition, when setting critical levels of aspiration, occurs where members are most aware of what they attributed to others as critical levels of aspiration (third row, Table 5). Clearly, the exposed discussion, where E had provided a standard, generated a perception among Ss that a high school student should aim high and a perception that their peers believed this too. An analysis of variance computed on the data in Table 5 (and Table 6) provided results similar to those described.

Validity of test. Next, we examine the effects of discussion on the validity attributed to the test as a measure of insight ability. These results are shown in Table 6.

The dominant feature of this table is that Ss who had a secret discussion (in the standard treatment) derogated the validity of the instrument and attributed the same attitude to others in their experimental group more than did persons in any other experimental condition. Among the six significant differences posted in the right margin of the table, all of them concern the lower ratings that secret discussants (in standard treatment) gave to the test.

In addition to the three queries noted in Table 6, on six additional measures of validity of the test, the secret discussants were more unfavorable toward the test as an adequate instrument than the exposed discussion group members (in standard treatment) but these results were not significantly different at the .05 level.

Table 6

Effects of Group Discussion on Validity Attributed to Test

	Standard		No-standard		
	Secret	Exposed	Secret	Exposed	Sig. ts in col. diffs.
	N-59 (a)	N=60 (b)	N=63 (c)	N=63 (d)	
Test good measure of ability?	3.21	3.93	4.36	4.29	a vs. b = 2.14*
					a vs. c = 3.26**
How favorable are you to test?	2.95	4.24	4.41	4.54	a vs. b = 4.03**
					a vs. c = 4.87**
How favorable are groupmates to					a vs. b = 3.83**
test?	3.06	4.00	4.28	4.20	a vs. c = 5.00**

*p = < .05.

**p = < .01.

***p = < .001.

Importance of insight ability. The separate forms of discussion provided no differences in the amount of importance Ss attributed to ability in insight, although there was a tendency for Ss in the secret-standard condition to derogate the importance of the ability more than other Ss.

The separate discussion conditions were not different in the attitudes developed toward E.

In sum, the effects of the discussions were primarily in the respect to their critical levels of aspiration and on attitudes toward the test, in the standard condition. Exposed Ss in the standard condition believed that

a high school student should get a higher score than exposed Ss in the no-standard condition, and secret Ss in the standard condition were most unfavorable toward the test.

Content of the discussions. What evidence is there that use of coping behavior may have been the consequence of a social reality in support of coping behavior.

During the discussion periods there was no recording of what was said. Comparable information on the content of the secret and exposed discussions is available, however, from the query after the post-experimental questionnaire which asked Ss to describe what they had talked about. These results cannot be taken as wholly reliable and must be interpreted with caution. Analysis of these data was made to answer the following questions:

a. What proportion of remarks were about the test and related matters? The members apparently dealt with many different topics: dates, girls, sports, the test, ability in insight, and so on. The proportion of words used by an S in describing reactions concerning the testing situation was taken to be an indicator of comparative concern with the testing experience in the separate conditions. The proportion of situationally-relevant words out of the total in each condition were: standard-secret, 77; standard-exposed, 61; no-standard-secret, 61; no-standard exposed, 51. More attention was devoted to the testing situation in the secret than in the exposed conditions, regardless of whether there was a standard or no-standard ($p = < .05$).

b. How many persons made negative remarks about the test as such? Table 7 reveals the number of persons, among all Ss in each experimental condition who made one or more negative comments on the test. It is clear

that more persons in the secret discussions made negative remarks than those in the exposed discussions and that more Ss in the standard condition made negative remarks than in the no-standard condition. There was, however, no interaction, that is, secret discussions did not contain more negative commenters (than exposed) in the standard condition than in the no-standard condition.

Table 7

Number Ss Making Negative Remarks about Validity of Test

		Standard		No-standard	
		Remarks about validity of test:			
	N	Negative	Not negative	Negative	Not negative
Secret discussion	84	24	18	18	24
Exposed discussion	77	11	30	3	33

Chi-square results of Table:[a]	Chi-square
Standard vs. no-standard	4.12*
Secret vs. exposed	17.92***
Interaction of immediately above two rows	.07
Standard: secret vs. exposed	7.82**
No-standard: secret vs. exposed	11.75**
Exposed: standard vs. no-standard	4.40*
Secret: standard vs. no-standard	1.71

*$p = < .05$.
**$p = < .01$.
***$p = < .001$.

[a]The first three rows were computed by partitioning of chi-square and the last four rows by collapsing the appropriate cells.

c. How many persons attributed remarks, whether favorable or unfavorable, about the test to their group? The comments were coded in respect to their referent: own belief versus group's belief. Within the no-standard condition, the number of persons attributing beliefs about the test to group or self did not significantly differ in the secret and exposed groups. Within the standard condition, however, more persons in the secret discussions attributed their beliefs to their groups than in the exposed discussions ($p = < .05$).

d. How many persons attributed negative remarks about the test to their groups? Among those who reported negative remarks, more persons attributed these to their groups in the secret discussions than in the exposed discussions ($p = < .01$), controlling on standard and no-standard conditions. There was no significant difference in the number of persons attributing negative remarks to their groups between standard and no-standard conditions, controlling on exposure of discussion.

The evidence is strong, we conclude, that secret discussions generated more negative remarks about the test, and more attribution of them to the group as a whole, than did exposed discussions. This conclusion suggests that a social reality developed in support of coping behavior. The evidence is weak, however, that this effect of the secret groups was stronger in the presence of a standard than in the absence of a standard.

Discussion

We have created in this experiment varying degrees of disposition to protect oneself against a loss of self-evaluation and have examined the effect of certain social conditions upon the use of coping behavior.

On the whole, persons who failed to achieve a standard set before them by an expert in such matters were more likely to evaluate their performances unfavorably than persons who had no such standard. We had anticipated that such a difference would occur because Ss in the standard condition would set higher levels of aspiration, and would evaluate their scores in terms of this higher criterion, than would Ss in the no-standard condition. The influence attempts of the expert were directed, however, to what has been designated as the critical level of aspiration (what a student should get for a satisfactory score) rather than to the realistic level of aspiration (what he realistically can expect to score). It is notable, therefore, that the expert appeared to determine the Ss critical levels and not their realistic levels. Ss, moreover, appeared to evaluate themselves in terms of their critical levels rather than in terms of their realistic levels.

We had also anticipated, on the one hand, that Ss in the standard condition, compared to those in the no-standard condition, might use coping behavior less because the social pressures from E would restrain Ss from lowering their aspiration levels and from making other efforts to overcome loss of self-evaluation as well. We expected, on the other hand, that inability to lower the level of aspiration would generate a threat to self-evaluation and thus strengthen forces toward engaging in other forms of coping behavior intended to overcome loss in self-evaluation. These two expectations are contradictory: both more coping behavior and less coping behavior were expected to accompany a lowered level of aspiration.

The results reveal that the standard condition did generate a higher level of aspiration than did the no-standard condition, as already noted, but that the use of other forms of coping behavior was not inhibited in the

standard condition and instead appeared more often there than in the no-standard condition. Apparently, then, a higher level of aspiration was accompanied by fuller use of other forms of coping behavior, as a method of dealing with the simultaneous loss in self-evaluation.

Yet, when we look inside the events in the standard condition, it is clear that the standard condition also represented a source of restraint against the use of all forms of coping behavior, since Ss in the secret condition were more ready to use coping behavior of all types than those in the exposed condition when pressed with a standard they could not achieve.

We assumed that Ss in the secret discussion would be better able to generate a social reality in support of coping behavior than those in the exposed discussions, and that Ss in the secret discussions therefore would demonstrate more use of coping behavior than those in the exposed discussions. We also assumed that the difference between secret and exposed groups in the employment of coping behavior would be greater in the standard condition than in the no-standard condition. These assumptions were supported, except in respect to the importance attributed to ability in insight where both secret and exposed groups rated the importance alike. Perhaps insight was objectively perceived as very important and thus its value could not be denied regardless of the social conditions and the desire to do so.

Did the secret discussion develop a social reality in support of coping behavior? The results suggest that they did. The secret discussants talked more about the test, said more negative things about it, and more often attributed the negative comments to their groups as a whole. The results do not strongly indicate, however, that social reality was more developed in the secret as compared to the exposed conditions when standards

were present than when they were absent. It is probable that the no-standard condition generated tension, since all Ss earned lower scores than they had expected, and thus a desire to engage in coping behavior was present to some degree in the absence of a standard from E, and secret groups then provided more social reality in support of such acts than did exposed ones.

Strictly speaking, of course, the successful Ss also employed coping behavior, directed in this case toward supporting a favorable self-evaluation. They perceived all aspects of the test, the ability, and E in a favorable light, thus indicating that they desired to keep matters exactly as they are.

Summary

High school senior boys were given a test (in groups of six members) which was alleged to be a measure of ability in insight. For half of the subjects a minimally good score was described by E and for the other half no standard was provided. All participants, except for those in a control condition, were given low scores on the test. Within each of the standard and no-standard conditions subjects were allowed a free period, introduced as an emergency and as an unexpected interruption in the testing procedure. During half of these interruption periods the E left the room (secret condition), in the other half of them he remained in the room (exposed condition). The major results follow:

1. Subjects in the standard condition evaluated their performances more unfavorably than subjects in the no-standard condition.

2. Subjects in the standard condition set a higher criterion, by which they apparently judged their performances, than did subjects in the no-standard condition.

3. Subjects in the standard condition therefore demonstrated more use of coping behavior, intended to overcome their above noted loss of self-evaluation, than did subjects in the no-standard condition.

4. Within the standard condition, those subjects who had an exposed discussion engaged in less coping behavior than those who had a secret discussion, a difference not found in the no-standard condition. Secret discussants in the standard condition, it should be noted, generated more easily achievable aspirations for themselves than did exposed discussants.

5. The available evidence suggests that subjects in secret discussions developed a social reality supportive of negative attitudes toward the test more than did subjects in the exposed discussions.

6. Subjects who received high scores on the test (success-control) were favorable toward all aspects of the situation and themselves, more so than those who received low scores.

References

English, H. & English, Ava. Dictionary of psychological and psychoanalytical terms. New York: Longmans, Green & Co., 1958.

Lewin, K., Festinger, L., Dembo, Tamara, & Sears, Pauline. Level of aspiration. In J. McV. Hunt (Ed.), Personality and behavior disorders. New York: Ronald, 1944.

Rosenfeld, H. & Zander, A. The influence of teachers on aspirations of students. J. educ. Psychol., 1961, in press.

Schachter, S. Deviation, rejection and communication. J. abnorm. scc. Psychol., 1951, 46, 190-207.

Schachter, S. The psychology of affiliation. Stanford, Calif.: Stanford Univer. Press, 1959.

Zander, A., Natsoulas, T., & Thomas, E. Personal goals and group's goals for the member. Hum. Relat., 1960, in press.

Zander, A. & Curtis, T. Effects of social power on aspiration setting and striving. J. abnorm. soc. Psychol. (manuscript submitted for consideration).